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**The Influence of Staff Communication Style on Service User Response – An
Exploratory Study**

And Research Portfolio

VOLUME ONE

(Volume two bound separately)

Sarah Andrews

September 2008

**Submitted in partial fulfilment of the requirements of the degree of
Doctor of Clinical Psychology**

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Chapter 1 Systematic Review

Is interaction training effective in altering the communication style of mothers of children with an intellectual disability?

Is interaction training effective in altering the communication style of mothers of children with an intellectual disability?

Running title: Effectiveness of Interactive Parent Training

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To be submitted to: *Journal of Applied Research in Intellectual Disabilities* (see Appendix 1).

Abstract

Background Communication interventions for children with intellectual disabilities are increasingly being conducted using parent-focussed approaches. However, the effectiveness of such interventions in altering the communication style of parents remains somewhat unclear. This review aimed to investigate training based on the Interactive Model for mothers of children with intellectual disabilities. In addition, the effect of such training on the children's communicative and cognitive development was also considered.

Method Six databases were searched identifying a total of 32 articles. Twenty four studies were excluded, leaving a total of 8 studies for inclusion in the present review. All studies were screened using a structured rating scale.

Results Parent-focussed training was found to be generally delivered via three methods; group sessions, individual sessions, or a mixture of both. Whilst overall outcomes for the effect on mothers' interaction style were largely positive, several methodological issues were highlighted that may result in these findings being interpreted with caution. In addition, the gains made by children with intellectual disabilities were found to be more variable.

Conclusions Whilst initial results appear encouraging, there is a lack of well conducted studies in this area, with consistent methodological weaknesses identified. Moreover, future research must consider the individual characteristics of the parent and child, as well as the wider communication environment.

Keywords: children, intellectual disabilities, parent training, interaction, communication

Introduction

Within the child development literature, interactions between parents and their children have been extensively studied. In the 1970s, this evidence base was extended when researchers became increasingly interested in aspects of communication between parents and children with an intellectual disability (Marfo, 1990). It has been reported that as many as 70% of children with an intellectual disability may have difficulties in communication and language production (Wetherby and Prizant, 1992). Kaiser et al. (1998) noted that the acquisition of communication skills in children with intellectual disabilities is fundamentally the same as that of normally developing children. However, it is highlighted that there may be more variation in the timing of the communication and a greater need for explicit instruction to support the developmental process. Specifically, it has been suggested that children with an intellectual disability initiate fewer interactions and appear less responsive than normally developing children (Kim and Mahoney, 2004).

Consequently, parents and caregivers of children with intellectual disabilities may have difficulty in interpreting their child's communication, due to its irregular and atypical nature. In turn, Chen et al. (2007) suggest that this could have an effect on both the child's development and the attachment between the child and their caregiver. In these circumstances, the communication process may be frustrating and discouraging for parents, since the reciprocal nature of conversation may be lacking (Cunningham et al., 1981). As a result, research has shown that mothers of intellectually disabled children may interact

differently with their offspring, in comparison to mothers of non-disabled children (Davis et al., 1988).

Specifically, studies comparing mother-child interactions in intellectual disabled and normally developing children have indicated that mothers may be less responsive and more controlling when their child has a disability (Davis et al., 1988; Garrad, 1989). Moreover, Tannock (1988) noted that children with an intellectual disability often exert less control over the interactional activity than non-disabled children. Due to this deficit, Field (1982) proposed that mothers may work harder to engage their children, for example, by using increased physical prompts or a more directive style. It has been suggested that this directive style is likely to be ineffective at promoting communication and may even have a detrimental effect on the communicative development of the child (Mahoney and Powell, 1988). Tannock et al (1988), however, noted that a certain amount of directive communication may be necessary, in order to engage the child and to increase their level of participation. Indeed, Mahoney and Wheeden (1997) suggested that the optimal style of interaction may be a high level of responsiveness, along with moderate levels of directiveness, in order to maintain the attention of the child.

Historically, interventions to promote communication skills in children with an intellectual disability have focussed on direct interventions with the child (Marfo, 1990). Increasingly, however, training and interventions with communication partners (e.g. parents) have been developed. Kaiser and Hancock (2003) noted that the main focus of such training is on helping partners

to recognise the child's communicative signals and creating more opportunities for the child to have an equal role in the conversation.

Indeed, many authors have suggested that in order to successfully facilitate the development of children's communication skills, the best person to implement interventions is the parent (Kaiser et al., 1998). Parents have the most frequent contact with the child and are considered to have a genuine investment in the development of their abilities. Iacono et al. (1998) highlighted that parents are also able to implement techniques in a variety of naturally occurring situations, rather than in artificial clinic based environments. In addition, Kaiser (1993) proposed that parents are best placed to be able to read the communicative intent of a child, compared to others such as a teacher or therapist. Therefore, involving the parent in the intervention process is likely to lead to the establishment of more positive communicative interactions, which could have long terms benefits for both the parent and the child (Mahoney, 1988).

On the whole, parent led interventions involve the parent, usually mother, as the primary agent in learning ways to facilitate the development of their child's communication skills in naturally occurring contexts. Such naturalistic approaches characterised by a focus on the process of interaction between the parent and child, and interventions are based on spontaneously occurring events that take place in the context of play and daily routines (Tannock and Girolametto, 1992). Generally, naturalistic approaches aim to improve the quality of interactions between the parent and child by encouraging parents to focus on the interest of the child and to follow their lead. In particular, they aim

to make parents more responsive to their child's communication and less directive and controlling (Tannock et al., 1992).

Many different intervention programs have been developed based on the principles of the naturalistic model (e.g. Fey, 1986; Alpert et al., 1988). The most prominent of these within the field of intellectual disabilities is the Interactive Model. Often described as 'conversational' or 'interactional', training based on this model aims to promote the use of positive and reciprocal communicative interactions between parents and their intellectually disabled children (Girolametto, 1988).

Theoretically, the Interactive Model is based on the social interactionist perspective of language development (McCollum and Hemmeter, 1997). This approach views the development of language as an interactive process in which the parent's communicative behaviour influences the behaviour of the child, and vice versa. These episodes of joint attention and involvement between the child and their parent are considered to be vital for the acquisition and development of language and communication skills (Tannock and Girolametto, 1992). In particular, training based on the Interactive Model provides parents with help in identifying children's communicative signals, and allowing children more opportunities to take turns and adopt an equal role in the conversation.

At present, however, the efficacy of using an interactive approach with parents of children with an intellectual disability remains somewhat unclear. Additionally, the most effective method by which to deliver such parent-

focussed interventions is yet to be determined. Thus, the present review will investigate the effectiveness of interactive training for mothers of children with an intellectual disability. Specifically, studies to date that have provided training based on the Interactive Model will be reviewed. As previously noted, children with an intellectual disability often require support with their communicative development and it appears from the general literature that this is increasingly conducted in the form of training for conversational partners (i.e. mothers). Despite the fact that this parent-focussed training has received considerable attention over the years, the effectiveness of this therapy in altering mothers communicative style has not been demonstrated reliably.

This systematic review aims to address the following questions:

Key Question:

- Is interaction training effective in altering the communication style of mothers of children with an intellectual disability?

Additional Question:

- What has been the effect of parent-focussed interactive training on their children's development?

Methodology

Search Strategy

A search for published papers was conducted using the following electronic databases: OVID, EMBASE, MEDLINE, PsychLIT, Web of Science, and the Cochrane Library. The following search terms were used: child OR children

AND intellectual disability, learning disability, developmental disability, developmental delay, mental retardation, mental handicap. These terms were combined with: parent training, interaction training, mother speech, language intervention, and communication training. A search was also conducted of the reference lists from key articles in order to identify any further related papers and ensure sensitivity of the electronic search. In addition, relevant experts in the field were contacted to obtain details of any additional studies.

Potential studies were identified through reading the title of the study and the abstract. In cases where it was not clear whether the article was suitable for inclusion, the full text was obtained so a judgement could be made.

Criteria for Including and Excluding Studies

The criteria for inclusion in the systematic review are:

- 1) Studies of children (under 16 years of age) that have been identified as having an intellectual disability.
- 2) Studies that provide data about the effect of a parent-focussed intervention, based on the Interactive Model, to alter the mothers' interaction style.
- 3) Studies where the intervention is carried out with the mother of a child with an intellectual disability.

The criteria for exclusion in the proposed systematic review are:

- 1) Studies of clinical populations other than children (e.g. adults).

- 2) Studies exclusively of children with Autistic Spectrum or other pervasive developmental disorders, as such children may have specific deficits in social interaction that impact on their communicative ability (Hancock and Kaiser, 2002)
- 3) Studies of children with solely language delay (with no associated intellectual disability) or those deemed 'at risk' of intellectual disability.
- 4) Studies investigating interactive training delivered to the child via teachers or other professionals.
- 5) Studies that provide communication training for the child as well as the mother.
- 6) Studies that do not provide outcome data on the mothers communication skills following intervention (e.g. observational studies, review articles).

Search Results

Using the search strategy detailed, a total of 32 papers were identified. Of those identified 24 did not meet criteria for inclusion in the review. Six of these studies were excluded as the children had expressive language delays and did not have an intellectual disability (Seitz & Hoekenga, 1974; McCollum, 1984; Slater, 1986; Alpert & Kaiser, 1992; Kaiser & Hemmeter, 1996; Pennington & McConnechie, 1999). Similarly, four studies were excluded as the children had autism or another pervasive developmental disorder (Hemmeter & Kaiser, 1994; Hancock & Kaiser, 2002; Mahoney & Perales, 2003; Ingersoll et al., 2005). An additional five studies were excluded as they did not report on the implementation of an intervention (Clark & Seifer, 1983; Kaiser et al., 1998; Kaiser & Hancock, 2003; Kim & Mahoney, 2004; Pennington et al., 2004). A

further six studies were excluded as the intervention was implemented by an individual other than the mother (Warren & Bambara, 1989; Warren & Gadzag, 1990; Kaiser & Hester, 1994; Yoder et al., 1994; Iacono et al., 1998; Yoder & Warren, 2001). Furthermore, two studies were excluded as the child participants also received a communication intervention (Yoder and Warren, 2002; Fey et al., 2006). Finally, one study was excluded as it did not meet the minimum methodological quality criteria (Kelly, 1982).

Therefore, this resulted in 8 papers being included for review. One of these studies, Girolametto et al., 1994, analysed a sub set of participants from a larger study, Tannock et al., 1992.

Methodological Quality of Studies

In order to be included in the review, each study had to meet an initial level of methodological quality. Quality criteria were developed specifically for the purposes of this review, in order to broadly investigate both the reliability and validity of papers, relative to the other included studies. These criteria were developed so that they also allowed for appropriate weighting to be given to studies, depending on their methodological rigour. Criteria were determined in advance of reviewing studies to avoid biases. Published guidelines such as those by Scottish Intercollegiate Guidelines Network (SIGN; 2008) and Cochrane (Higgins and Green, 2008) were used in the development of the generic quality criteria. Additional criteria specific to training parents to adapt their communication style were thus identified. Such criteria were drawn from other studies which highlighted methodological issues pertinent to this particular area

of research (Tannock and Girolametto, 1992; McCollum and Hemmeter, 1997; Pennington et al, 2004). Specifically, factors such as the importance of providing detailed characteristics of the children in the study, including level of disability as well as communicative functioning, have been highlighted (see Price, 1997). Similarly, the importance of including a control group in order to allow for comparison with mother's who had not received an intervention was deemed to be paramount (see Tannock and Girolametto, 1992).

Each study was awarded a score of 0 or 1, depending if each criterion is met. In addition, in order to give the higher quality studies greater weighting, principal criteria were identified. Principal criteria were defined as those with greater importance in this area of research. For example, it was considered more important that the study outlined the training methods used than discussed the study limitations.

Papers were categorised according to the presence of the following criteria:

- Excellent – All principal criteria present and above 80% of all criteria.
- Good – At least 8 principal criteria present and 60-79% of all criteria.
- Reasonable – At least 6 principal criteria present and 40-59% of all criteria.
- Poor – Only 4 or less principal criteria present and 20-39% of all criteria.

Only those papers meeting reasonable quality, or above, were included in the study. A second rater reviewed every paper to ensure the reliability of the quality ratings. The inter-rater reliability found a high level of agreement

regarding the quality rating of each paper (Cohen's Kappa coefficient 0.74). Through discussion, this was increased to total agreement for all items.

Results

The included studies were reviewed in order to determine the effectiveness of training, based on the Interactive Model, to alter the interaction style of mothers when communicating with their intellectually disabled child. More specifically, this involved investigating the main focus of the parent training models with a view to determining which methods are most successful. Furthermore, the effectiveness of parent-focussed training their child's development was examined. Lastly, this review also considered the methodological quality of papers.

Insert Tables 1 & 2 about here

Effectiveness of Parent Training

As can be seen in Table 2, of the eight studies that investigated the effectiveness of parent-focussed interactive training, positive changes in interaction style were reported in all studies. That is, mothers showed an increase in the frequency with which they used the recommended intervention techniques at post-test.

There was, however, some diversity in the methods by which training programs were delivered. Such formats influence the range of training methods that can be

used, with varying parental behaviours being targeted for intervention. Broadly, these formats can be grouped into those where training is delivered on an individual basis, in a group format and a mixture of group and individual sessions. Three studies provided training via one-to-one sessions with mothers. Two studies provided training via a group format, whilst a further three studies provided training using a mixture of individual and group sessions.

Studies providing intervention via one-to-one sessions

Three studies (Mahoney and Powell, 1988; Seifer et al., 1991; Mahoney and Perales, 2005) trained mothers using exclusively one-to-one sessions. On the whole, in sessions such as these, the mother and child were present during training which allowed staff to model techniques whilst interacting with the child. This approach attempted to modify the mother's behaviour at the moment it is exhibited, by providing coaching and immediate feedback whilst the mother is interacting with the child.

There was, however, considerable variation in the length of time training sessions were conducted. Mahoney and Perales (2005) provided mothers and children with 1 hour weekly sessions of relationship-focussed early intervention over a 9 month period. These sessions were provided by an early intervention specialist and took place either at a centre-based facility or at the participant's own home. This study compared gains made by mothers of children with an intellectual disability, to mothers of children with a pervasive developmental disorder (PDD). Following intervention, overall results indicated that the program was successful at decreasing mothers' level of directiveness. However,

mothers of children with PDDs were found to have made more improvements than mothers of children with intellectual disabilities. Seifer et al. (1991) provided mothers with one-to-one interaction coaching over a much longer period, 18 months. The interaction training was conducted as part of a more comprehensive program for mothers and their children with intellectual disabilities. Following training, it was found that the mothers in the intervention group showed a reduction in their level of controlling behaviours when interacting with their children. In addition, marginally significant increases in responsivity were found in the treatment group. As seen in Table 2, both these studies received a quality rating of 'good'.

Similarly, Mahoney and Powell (1988) implemented interactive training via the Transactional Intervention Program (TRIP) in weekly parent-child home visits over an even longer 28 month period. However, it is noted that providing training over such a long period of time caused difficulty in interpreting results due to maturation effects. Following intervention, mothers showed decreases in frequency of turns and their level of directiveness. However, as this study did not use a control group, changes in both child and parent behaviour post program cannot be reliably attributed to treatment effects.

Studies providing intervention via group sessions

Those studies using a group training format were carried out over a shorter time span than those providing one to one sessions. Weistuch and Lewis (1985) carried out two group workshops per week for an 8 week period. These workshops educated mothers in how children learn to use words and the role

that they can play in facilitating this development. Following completion of the program, results indicated that mothers in the intervention group increased their amount of interaction time, and increased their use of topic expansion when interacting with their children. In terms of quality, however, this study received a rating of 'reasonable'. Of note, the study did not outline the training methods used and relied on brief observations in order to categorise parental behaviour.

Common to these group training formats is the use of incorporating direct instructional approaches with more informal resources such as videotapes, lectures, and parent manuals. However, none of the group training formats relied on videotapes to the extent of a program developed by McConkey and O'Connor (1982). Their parent-focussed training used a video-course model to improve the language of children with an intellectual disability, focussing specifically on the formation of two-word sentences and associated widening of vocabulary that occurs at this time. This group took place one evening per week, for a 7 week period, with extensive home based exercises to be carried out between groups. Analysis of observations, following intervention, indicated that mothers had shown significant improvements in word usage, percentage of declarative statements and responsiveness to child's speech. Such results, however, must be interpreted with caution. As seen in Table 2, this paper received a quality rating of 'reasonable'. In particular, the lack of control group means that it was not possible to compare results with mothers who had not completed the intervention.

Studies providing intervention via group and one-to-one sessions

A further three studies used a combination of one to one and group format training (Giralametto, 1988; Tannock et al., 1992; Girolametto et al., 1994). These studies all investigated the use of the Hanen Early Language Parent Program (HELPP; Manoloson, 1985). This is a primarily group-based program, providing parents with group sessions alongside manual work and homework. Each session follows a chapter in a manual in which parents are to work towards certain goals (e.g. following the child's lead, signalling non-verbally for the child to take a turn). In addition, parents also received separate home visits to individualise information from the group session.

Firstly, Girolametto (1988) targeted mothers' turn taking, contingent responsiveness and level of topic control during interactions between the mother and child. Results indicated that, following intervention, mothers in the experimental group showed a greater percentage of responsive turns. In addition, they were also found to show more contingent responsiveness and less topic control when interacting with their children.

In a follow up study, Tannock et al. (1992) used the same design to determine if a parent-focussed interactive approach to language intervention enhanced the language use or acquisition in pre-school aged children with an intellectual disability. Following intervention, results indicated that mothers in the experimental group used more responsive strategies, such as language modelling (e.g. labelling of objects that the child was focussed on) and comments. Furthermore, a decrease in directiveness, as seen by fewer questions and

requests, was also found in the intervention group. In addition, the data was analysed by dividing the children into groups depending on their mental age. Post-test analysis indicated that the mothers showed significant differences in language and turn taking in the high mental age group. However, no differences were found for directiveness or commenting during interactions. Comparison of the mothers in the low and high mental age group indicated that those in the high mental age group were more responsive at pre and post-testing.

Lastly, Girolametto et al (1994) also investigated a sub-set of the participants from the Tannock et al. (1992) study. Specifically, they aimed to investigate the effect of interactive parent training on levels of joint engagement between the mother and child. Following intervention, an increase was found in the duration and frequency of interactive engagement in mothers in the intervention group, compared with those in the control group.

These three studies all received a quality rating of 'excellent'. That is, they met all the principal criteria from the quality checklist. In addition, they also scored very highly on the generic criteria. It is noted, however, that none of these studies provided a justification of their sample size.

Summary of effectiveness of parent training

In summary, parent training programs have been delivered via various methods. Regardless of the way in which programs are delivered, they all emphasise teaching mothers' skills, which can then be practiced and used outwith sessions.

In addition, video recorded interactions between mothers and children are commonly used in order to demonstrate techniques and chart progress.

Nevertheless, it is noteworthy that none of the included studies specifically tailored the parent-focussed training to the particular needs of the child. All studies used the same content and training strategies across all participants. Those incorporating individual, as well as group, sessions (Girolametto, 1998; Tannock et al., 1992) did allow for more focus on individuals dyads, but all participants worked on the same targets regardless of the child's level of ability. Pre-selecting the parent behaviours to be targeted assumes that all mothers have a deficit in that area. It may be important to consider if the mother already exhibits the behaviour at an appropriate level. Similarly, another consideration may be whether the behaviours targeted within training are important within the context of each mother-child dyad.

Effect of Parent Training on Children's Development

In contrast to the generally positive results obtained for the effect of training on mothers' communication style, the results for child outcomes are more variable. As seen in Table 1, six of the included studies reported the effect of parent-focussed interactive training on aspects of the child's development. Of these, four studies reported the effect of parent training on the communicative development of the child, whilst two studies investigated the effect on the child's cognitive development.

Effect of parent training on children's communicative development

In terms of the communicative development of the children, it is apparent that measurement of children's communication differs between the studies, with some using more reliable methods of measurement than others. In addition, variation has been found in studies using similar methods and there are several methodological weaknesses that limit the interpretation of positive results.

Firstly, McConkey and O'Connor (1982) used mean length utterance (MLU) in order to assess the effect of training mothers on their child's communication. MLU was assessed via brief samples of interaction between child and mother pre and post intervention. It was found that, after implementation of the mother's video course, children's usage of spontaneous language increased. In addition, an increase was also found in the percentage of words children used that referred to actions. It was noted, however, that there was large variability between the results, with some children showing little or no improvement in language usage. Furthermore, MLU has been highlighted as an unreliable source of measurement (Beveridge, 1989). As noted, this study scored 'reasonable' on the quality criteria; therefore results should be interpreted with caution.

While some studies used more reliable measurement methods, substantial variation in results were still noted. In their study into relationship focussed early intervention, Mahoney and Perales (2005) found that, following intervention, children's expressive language development increased by 167%, with receptive language increasing by 138%, as measured by the Transdisciplinary Play Based Assessment (Linder, 1993). Again, there were

sizeable differences found in performance between the children, with 70% showing improvements in expressive language and 80% showing improvements in receptive language.

Furthermore, it is noted that there is considerable disparity in findings between studies using the same methodology. For example, Girolametto (1988) found that following parent-focussed training, when compared with children in the control group, those children in the intervention group showed an increase in overall number of communicative turns, as well as number of verbal turns. However, Tannock et al (1992) did not replicate these findings when using the same method with a larger sample size. In particular, whilst the experimental group were found to show more vocal turns than the control group, these groups were not found to differ on verbal or gestural turns. Similarly, treatment effects were not found for the acquisition of social interactional and language skills at follow-up, as both groups were found to have developed these skills over time.

Effect of parent training on children's cognitive development

Two studies measured the impact of a parent-focussed intervention upon the development of children's cognitive ability. Mahoney and Powell (1988) tested children on the Bayley Scales of Infant Development (Bayley, 1969) prior to and following parent training. Results indicated that children showed an increase on the Bayley scales (Bayley, 1969) following parental intervention. Similarly, Seifer et al. (1991) found greater changes on the Bayley Scales (Bayley, 1969) and the Uzgiris-Hunt Ordinal Scales of Infant Development (Uzgiris and Hunt, 1975) for children in the intervention group.

Despite the fact that Seifer et al. (1991) noted changes in developmental status, the children were not randomly assigned to the treatment and control group. Instead, they were assigned to groups depending on their availability to attend the program on certain days. Therefore, such lack of random assignment limits the interpretation of the results. Similarly, even though Mahoney and Powell (1988) observed improvements on the Bayley Scales of Infant Development (Bayley, 1969) following intervention, this study did not use a control group. Therefore, it is not possible to separate the effects of the intervention from those which would be expected developmentally without intervention or from other factors. Thus, there is no reliable evidence that the parent training had an impact on the development of children outwith the context of the mother-child interactions.

Summary of effect of parent training on children's ability

Overall, the impact of training parents on children's development is somewhat unclear. Whilst several studies have reported positive findings, there are many methodological issues that limit the interpretation of these results. In particular, several of the studies were conducted using small sample sizes with limited information provided regarding the level or nature of each child's disability. Also, the lack of reliable measurements used to assess the communicative and developmental level of children has resulted in difficulty determining any gains made. Furthermore, one of the main threats identified to examining children's development is maturation; therefore, the lack of control groups in many of the studies means that results could not be differentiated from what would be expected as part of normal development. Thus, given the general

methodological weaknesses apparent in the measurement of child outcomes in the included studies, it is possible that the observed changes in children's communicative abilities may be attributed to factors other than the parental training.

Discussion

Across all studies reviewed parent-focussed interactive training was found to result in positive changes in the communicative behaviours of parents. That is, all studies found that mothers changed their interaction style as a result of intervention. However, training programs were delivered in varying formats; one-to-one, group, or a combination of one-to-one and groups contexts.

Considerable variation was found in the length of training that was carried out via one-to-one sessions, ranging from 9-28 months. Mahoney and Perales (2005) and Seifer et al. (1991) found that individual sessions were effective at decreasing mothers' directive behaviour. In addition, Mahoney and Powell's (1988) study also found positive results; however interpretation of these was limited due to lack of a control group. Therefore, it was not possible to make comparisons of communicative style with parents who had not received the intervention.

Those studies using a group format were carried out over shorter periods of time than those using individual sessions (approximately 7-8 weeks). Both studies reviewed (McConkey and O'Connor, 1982; Weistuch and Lewis, 1985) showed positive results in terms of the impact interaction training had on mothers'

communication style. However, these studies received lower quality ratings relative to the other papers reviewed, indicating that such encouraging results should be interpreted with caution.

Perhaps the most positive findings were in those training programs carried out using a mixture of group and individual sessions. Three studies were carried out using the Hanen Early Language Parent Program (HELPP; Manoloson, 1985). Specifically, this program was found to be effective in decreasing levels of mothers' directiveness. Moreover, it was also found to result in increased contingent responsiveness, turns, language modelling, and the use of comments. Of all the studies reviewed, those using the HELPP (Manoloson, 1985) were found to be the most methodologically robust.

In comparison, the effectiveness of parent interventions on the communicative behaviours of the children was somewhat less clear. In particular, there is greater variability in the results compared with the effects on the mothers' abilities. Of note, Girolametto (1988) found positive results in terms of increases in children's verbal and gestural turns following parental intervention. However, using an identical method with a larger sample, Tannock et al. (1992) failed to replicate these positive results. Therefore, there is only limited evidence available to indicate that parental training has an impact on children's communicative development.

Both studies that investigated the effect of parent training on children's cognitive development (Mahoney and Powell, 1988; Seifer et al., 1991) found

that children showed gains in cognitive development following intervention. However, these studies were conducted via group sessions which were carried out over many months. Therefore, again, the issue of what cognitive gains would be expected developmentally is highlighted. In addition, despite the fact that Seifer et al. (1991) used a control group, the participants were not randomly assigned.

In summary, training for parents based on the Interactive Model appears to have largely positive results in terms of the impact it has on mothers' communication. Conversely, there is limited evidence regarding the impact of training parents on their children's development. As noted, many of the limitations of the included studies are with regard to methodological problems. There are several key issues that arise throughout much of the research in this area.

Firstly, the limitations of the study designs used meant that any observed changes could not be reliably attributed to the intervention alone. In those studies that did not use a control group, it is difficult to ascertain the effect of treatment. In terms of child outcomes, maturation is one of the greatest threats to the validity of the findings. This is especially the case in those studies that are carried out over a long period of time (e.g. Mahoney and Powell, 1988).

In addition, many of the included studies have used a fairly small sample size, with none of the included studies providing a justification for their sample size. Tannock and Girolametto (1992) noted that as the treatment effects on mothers' abilities are first-order, these are likely to be larger than the second order effects

on the children. Therefore, smaller treatment effects, such as those on the children's abilities, might not be identified due to the relatively modest sample sizes used.

Furthermore, in order to determine mother and child communicative level at baseline, the majority of studies used a single, brief, one-off observation. This was usually in the form of a video recording of the mother and child interacting prior to intervention. Tannock and Girolametto (1992) highlighted that reliance on a single episode of interaction is unlikely to be sufficient in providing reliable sampling of behaviour over time. In addition, some studies carried out this recording in a laboratory or clinic based setting. This is likely to further impact on the reliability as interaction in a novel setting may be different to that at home (Frant Hecht et al., 1993). For example, children may not be comfortable interacting in these settings and, similarly, mothers may also alter their natural interaction style.

Secondly, little consideration has been given to the impact of individual characteristics upon the outcomes of parent-focussed training. For example, none of the included studies provided screening to assess the benefit that the children would derive from attending the programs. Children have been studied at different ages and stages of development and interventions have been carried out over varying timescales. In addition, few studies measured or reported the child's level of disability which may influence the outcome of the intervention (Kaiser et al., 1998). On the whole, the populations studied have tended to be white, middle class and highly motivated. It is also noted that prior to

intervention, mothers in some studies already showed fairly high levels of responsiveness (McCollum and Hemmeter, 1997). As noted by Conti-Ramsden (1997), training programs need to be adaptable in terms of the specific needs and characteristics of each parent-child dyad.

Lastly, a fundamental issue with the development of parental training programs is the debate about what constitutes an appropriate level of parental behaviour. There is differing opinion as to what levels of directiveness and responsiveness are optimal to engage children. Whilst directiveness is largely viewed as a negative behaviour (Marfo, 1990), it has been highlighted that a certain level of directiveness is necessary to engage children with an intellectual disability. Moreover, directive communication that follows the child's interest has been suggested to be more facilitative of language development than directive behaviour that follows parent led topics (Tannock, 1988). Therefore, as children with an intellectual disability are likely to initiate fewer interactions, some children may benefit from more direct, instructional approaches (Conti-Ramsden, 1997). Thus, in order to ensure that appropriate training programs are devised, further clarity is required regarding the effect of directive and responsive communication on children's language development, and what alterations would be beneficial for training programs to be delivered to parents of children with an intellectual disability.

Conclusion

To summarise, the studies reviewed appear to indicate generally positive results in relation to the effectiveness of interactive based training for parents in

adapting their communication style. Overall, the findings from studies to date indicate that this form of training is likely to be beneficial in aiding parents to communicate effectively with their intellectually disabled children. In terms of the impact of parent training on children's development, there is less evidence to support this.

Whilst these results are largely encouraging, the lack of well conducted, methodologically rigorous studies in this area is apparent. Indeed, Girolametto (2006) has recently highlighted the dearth of such studies investigating the efficacy of parent-focussed language interventions for children with intellectual disabilities. It is noted that such research must move towards considering the individual characteristics of the child, the parent, and the wider family system. Interactions between children and their mothers are often in non-dyadic situations where siblings, friends, or other individuals are present. Moreover, mothers will interact with children in multiple settings, all of which will require different behaviours from the child and subsequently different supportive strategies from the mother.

Thus, the results from this review add to the evidence that the use of training may aid in assisting parents to develop strategies that encourage and promote didactic communication. However, it is essential that such training programs adequately meet the needs of both the child and the parent. To ensure that this is the case, further research needs to be carried out in order to determine the optimal communication style to benefit the parent as well as the child.

References

- Alpert, C. and Kaiser, A. (1992) Training parents as milieu language teachers. *Journal of Early Intervention*, 16, 31–52.
- Alpert, C., Kaiser, A., Hancock, T., Hemmeter, M. & Ostrosky, M (1988) Experimental analysis of milieu language teaching with parents and siblings. 21st Annual Gatlinburg Conference on Research and Theory in Mental Retardation and Developmental Disabilities.
- Bayley, N. (1969) *Bayley Scales of Infant Development*. New York: Psychological Corp.
- Beveridge, S. (1989) Parents as teachers of children with special educational needs. In: *Cognitive Approaches in Special Education*, (Ed. Sugden, D). London: Falmer Press.
- Chen, D., Klein., D. & Haney, M. (2007) Promoting interaction with infants who have complex multiple disabilities: development and field testing of the PLAI curriculum. *Infants and Young Children*, 20(2). 149-162.
- Clark, G.N. & Seifer, R. (1983) Facilitating mother-infant communication: A treatment model for high-risk and developmentally-delayed infants. *Infant Mental Health Journal*, 4(2), 67-82.

Conti-Ramsden, G. (1997) Parent-child interaction in mental handicap: A commentary. In: *Language and Communication in Mentally Handicapped People* (Eds. G. Conti-Ramsden and I. Leudar), pp.143-156. London: Chapman & Hall.

Cunningham, C.E., Reuler, E., Blackwell, J. & Deck, J. (1981) Behavioural and linguistic developments in the interactions of normal and retarded children with their mothers. *Child Development*, 52, 60-72.

Davis, H., Stroud, A. & Green, L. (1988) Maternal language environment of children with mental retardation. *American Journal on Mental Retardation*, 93, 144-153.

Fey, M. (1986) *Language Intervention with Young Children*. London: Taylor & Francis.

Fey, M. E., Warren, S.F., Brady, N., Finestack, N.H., Bredin-Oja, S.L., Fairchild, M., Sokol, S. & Yoder, P.J. (2006) Early effects of responsivity education/prelinguistic milieu teaching for children with developmental delays and their parents. *Journal of Speech, Language, and Hearing Research*. 49(3), 526-548.

Field, T. (1982) Interaction coaching for high risk infants and their parents. In: *Prevention in Human Services*. Haworth Press: New York.

Frant Hecht, B., Levine, H.G. & Mastergeorge, A.M. (1993) Conversational roles of children with developmental delays and their mothers in natural and structured situations. *American Journal on Mental Retardation*, 97(4), 419-429.

Garrad, K.R. (1989) Mothers' verbal directives to delayed and nondelayed children, *Mental Retardation*, 27, 11-18.

Girolametto, L. (1988) Improving the social-conversational skills of developmentally delayed children: an intervention study. *Journal of Speech and Hearing Disorders*, 53, 156–167.

Girolametto, L. (2006) Services and programs supporting young children's language development. *Encyclopedia of Language and Literacy Development*, 1-6.

Girolametto, L., Verbey, M. & Tannock, R. (1994). Improving joint engagement in parent-child interaction: An intervention study. *Journal of Early Intervention*, 18, 155-157.

Hancock, T.B. & Kaiser, A.P. (2002) The effects of trainer-implemented enhanced milieu teaching on the social communication of children with autism. *Topics in Early Childhood Special Education*, 22(1), 39-54.

Hemmeter, M. L. & Kaiser, A. (1994) Enhanced milieu teaching: Effects of parent-implemented language intervention. *Journal of Early Intervention*, 18, 269–289.

Higgins, J.P.T. & Green, S. (2008) *Cochrane handbook for systematic reviews of interventions*. Version 5.0.0. The Cochrane Collaboration.

Iacono, T. A., Chan, J.B & Waring, R.E. (1998) Efficacy of a parent-implemented early language intervention based on collaborative consultation. *International Journal of Language and Communication Disorders*, 33(3), 281-303.

Ingersoll, B., Dvortcsak, A., Whalen, C. & Sikora, D. (2005) The effects of a developmental, social–pragmatic language intervention on rate of expressive language production in young children with autistic spectrum disorders. *Focus on Autism and other Developmental Disabilities*, 20(4), 213-222.

Kaiser, A. (1993) Parent-implemented language intervention: An environmental system perspective. In: *Enhancing Children's Communication: Research Foundations for Intervention* (Eds A. Kaiser & D. Gray), pp. 63–84. Paul H. Brooks: Baltimore.

Kaiser, A.P., & Hancock, T.B (2003) Teaching parents new skills to support their young children's development. *Teaching Parents New Skills*, 16(1), 9-21.

Kaiser, A.P. & Hemmeter, M.L. (1996) The effects of teaching parents to use responsive interaction strategies. *Topics in Early Childhood Special Education*, 16(3), 375-408.

Kaiser, A. & Hester, P. (1994) Generalized effect of enhanced milieu teaching. *Journal of Speech and Hearing Research*, 37, 1320–1340.

Kaiser, A.P., Hancock, T.B. & Hester, P.P. (1998) Parents as cointerventionists: Research on applications of naturalistic language teaching procedures. *Infants and Young Children*, 10(4), 46-55.

Kelly, J. E (1982). Effects of intervention on caregiver-infant interaction when the infant is handicapped. *Journal of the Division for Early Childhood*, 5, 53-63.

Kim, J.M., & Mahoney, G. (2004) The effects of mother's style of interaction on children's engagement: Implications for using responsive interventions with Parents. *Topics in Early Childhood Special Education*, 24 (1), 31-38.

Linder, T.W. (1993) *Transdisciplinary Play Based Assessment: A Functional Approach to Working with Young Children*. Baltimore, MD: Brookes.

Mahoney, G. (1988). Maternal communication style with mentally retarded children. *American Journal of Mental Deficiency*, 92, 352-359.

Mahoney, G. & Perales, F. (2003) Using relationship-focussed intervention to enhance the social-emotional functioning of young children with Autistic Spectrum Disorders. *Topics in Early Childhood Special Education*, 23(2), 74-86.

Mahoney, G. & Perales, F. (2005) Relationship-focussed early intervention with children with pervasive developmental disorders and other disabilities: A comparative study. *Developmental and Behavioural Paediatrics*, 26(2), 77-85.

Mahoney, G. & Powell, A. (1988) Modifying parent-child interaction: enhancing the development of handicapped children. *The Journal of Special Education*, 22(1), 82-96.

Mahoney, G. & Wheeden, C. A. (1997). Parent child interaction: The foundation for family-centred early intervention practice: A response to Baird and Peterson. *Topics in Early Childhood Special Education*, 17(2), 165-184.

Manoloson, H.A. (1985) *It takes two to talk: A Hanen Early Language Parent Guidebook*. The Hanen Centre, TO, Ontario.

Marfo, K. (1990) Maternal directiveness in interactions with mentally handicapped children: an analytical commentary. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 31, 531-549.

McCollum, J. (1984) Social interaction between parents and babies: validation of an intervention procedure. *Child: care, health and development*, 10, 301-315.

McCollum J.A. & Hemmeter, M.L. (1997) Parent-child interaction intervention when children have disabilities. In: *The Effectiveness of Early Intervention*. (Ed M.J Guralnick). pp. 549–576. Baltimore, MD: Brookes.

McConkey, R., & O'Connor, M. (1982) A new approach top parental involvement in language intervention programs. *Child: care, health and development*, 8, 163-176.

Pennington, L. & McConnachie, H. (1999) Mother-child interaction revisited: Communication with non-speaking physically disabled children, *International Journal of Language & Communication Disorders*, 34(4), 391–416.

Pennington, L., Goldbart, J. & Marshall, J. (2004) Interaction training for conversational partners of children with cerebral palsy: a systematic review. *International Journal of Language & Communication Disorders*, 39(2), 151 – 170.

Price, P. (1997) Language intervention and mother–child interaction. In: *Language and Communication in Mentally Handicapped People* (Eds M. Beveridge, G. Conti- Ramsden & I. Leudar), pp.185–217. London: Chapman & Hall.

Scottish Intercollegiate Guidelines Network (2008) Systematic Literature Review. In: *SIGN:50, A guideline developers handbook*. (Ed. Harbour, R.T). pp 28-32. SIGN.

Seifer, R., Clark, G. N. & Sameroff, A. J. (1991). Positive effects of interaction coaching on infants with developmental disabilities and their mothers. *American Journal on Mental Retardation*, 96(1), 1-11.

Seitz, S. & Hoekenga, R. (1974). Modeling as a training tool for retarded children and their parents. *Mental Retardation*, 12, 28-31.

Slater, M. (1986) Modification of mother-child interaction process in families with children at risk for mental retardation. *American Journal of Mental Deficiency*, 91, 257-267.

Tannock, R. (1988) Control and reciprocity in mothers' interactions with Down syndrome and normal children. In: *Parent-child Interaction and Developmental Disabilities: Theory, Research and Intervention* (Ed K. Marfo), pp. 163-180. New York: Praeger.

Tannock, R. & Girolametto, L. (1992) Reassessing parent-focused language intervention programs. In: *Causes and Effects in Communication and Language Intervention* (Eds S. Warren & J. Reichle), pp. 49-79. Baltimore: Paul H. Brooks.

Tannock, R., Girolametto, L. & Siegel, L.S. (1992) Language intervention with children who have developmental delays: effects of an interactive approach. *American Journal on Mental Retardation*, 97(2), 145-160.

Uzgiris, I.C, & Hunt, J.M (1975) *Assessment in Infancy: Ordinal Scales of Psychological Development*. Champaign: University of Illinois Press.

Warren, S. & Bambara, L., (1989) An experimental analysis of milieu language intervention: teaching the action-object form. *Journal of Speech and Hearing Disorders*, 54, 448–461.

Warren, S. & Gazdag, G. (1990) Facilitating early language development with milieu intervention procedures. *Journal of Early Intervention*, 14, 62–86.

Weistuch, L. & Lewis, M. (1985) The language interaction intervention program. *Analysis and Intervention in Developmental Disabilities*, 5, 97-106.

Wetherby, A. M. & Prizant, B. M. (1992). Profiling young children's communicative competence. In: *Causes and Effects in Communication and Language Intervention* (Eds S. Warren & J. Reichle), pp. 217-253. Baltimore: Paul H. Brooks.

Yoder, P.J. & Warren, S.F. (2001) Relative treatment effects of two prelinguistic communication interventions on language development in toddlers with

developmental delays vary by maternal characteristics. *Journal of Speech, Language, and Hearing Research*, 44, 224-237.

Yoder, P.J & Warren, S.F. (2002) Effects of prelinguistic milieu teaching and parent responsivity on dyads involving children with intellectual disabilities. *Journal of Speech, Language and Hearing Research*, 45(6), 1158-1175.

Yoder, P., Davies, B., Bishop, K. and Munson, L. (1994) Effect of adult-continuing wh-questions on conversational participation in children with developmental disabilities. *Journal of Speech and Hearing Research*, 37, 193–204.

Table 1: Quality Rating Scale

(Those marked with * are principal criteria)

	Weistuch & Lewis(1985)	McConkey & O'Connor (1982)	Mahoney & Powell (1988)	Girolametto (1988)	Seifer et al. (1991)	Tannock et al. (1992)	Girolametto et al. (1994)	Mahoney & Perales (2005)
Objectives								
1. Was the research question clearly defined?	1	1	1	1	1	1	1	1
Participants								
2. Did the study report age of all child participants? *	1	1	1	1	1	1	1	1
3. Did the study report gender of all child participants?	0	0	0	1	1	1	1	1
4. Did the study provide information on diagnosis or known condition of children? *	1	1	1	1	1	1	1	1
5. Did the study asses developmental level								

of children at baseline?	0	0	1	1	1	1	1	1	1	1
6. Did the study assess communicative level of the children at baseline? *	1	1	0	1	0	1	1	1	1	1
7. Did the study use a control group? *	0	0	0	1	1	1	1	1	1	1
8. Were the participants comparable at baseline? *	0	1	1	1	1	1	1	1	1	0
9. Did the study provide information on parental demographics?	0	1	1	1	1	1	1	1	1	1
10. Was the sample size justified?	0	0	0	0	0	0	0	0	0	0
Measurement										
11. Has the study clearly outlined aspect of communication targeted for intervention? *	0	1	1	1	1	1	1	1	1	1

12. Has the study measured the key variables using an appropriate assessment? *	1	0	1	1	1	1	1	1	1
13. Did the study use assessments that are reliable and valid for the population?	0	0	0	1	1	1	1	1	1
14. Were the dyads observed pre and post intervention? *	1	1	1	1	1	1	1	1	1
15. Did the study use a structured coding system for observations?	1	0	0	1	1	1	1	1	1
16. Did the study report the inter-rater reliability of coded observations?	1	0	1	1	1	1	1	1	1
Procedure									
17. Was the training procedure detailed? *	0	0	0	1	1	1	1	1	1
18. Did the study use a training protocol?	1	1	1	1	0	1	1	1	1

19. Were participants randomly allocated to groups? *	1	0	0	1	0	1	1	0
Statistical Analysis								
20. Did the study use appropriate statistical analysis to answer research question?	1	0	1	1	1	1	1	1
Discussion								
21. Was the discussion related to wider literature?	1	0	0	1	0	1	1	1
22. Were the study limitations discussed?	0	1	1	1	1	1	1	1
Score	12	10	13	21	17	21	21	19
% of score	55	45	59	95	77	95	95	86
Number of principal criteria met	6	6	6	10	8	10	10	8
Overall Quality Rating	Reasonable	Reasonable	Reasonable	Excellent	Good	Excellent	Excellent	Good

Table 2: Summary of Reviewed Papers

Study	Design	Child Subjects	Duration of Training	Focus/content of training	Parent Outcome	Child Outcome
<i>One-to-one sessions</i>						
Mahoney & Powell (1988)	Pre-post intervention design with no control group.	41 children with moderate to severe mental retardation (aged 2-32 months).	11 months Weekly home visits. 6-10 weekly videotaped recordings of parents and child.	Transactional Intervention Program (TRIP).	Decrease in frequency of turns. Decrease in overall level of directiveness.	Increase in Bayley Scales of Development following intervention.
Seifer et al. (1991)	Pre-post intervention design - with non-random assignment to intervention and no treatment groups.	23 intervention group (mean age 8.2 months) 17 control group (mean age 8.2 months) 7 Down Syndrome, 33 unknown aetiology	10 months 1 morning per week	To modify mothers responsivity through brief program of interaction coaching. Providing mothers with strategies to employ during interactions to	Decrease in controlling behaviour. Increase in responsivity.	Greater increase on Bayley Scales and Uzgris Hunt Scales than children in control group.

Mahoney & Perales (2005)	Pre-post intervention comparative design.	30 children with pervasive developmental disorders (mean age 32.4 months) 20 children with developmental disabilities (mean age 23.3 months)	36 weeks (average) 1 hour parent and child sessions	reduce non-contingent over-stimulation. Helping parents use responsive teaching strategies to encourage their children to acquire and use pivotal developmental behaviours that address their individual developmental needs	Decrease in directiveness. Mother's of children with PDD's found to show greater decrease in directiveness.	Increase in expressive and receptive language.
<i>Group Sessions</i>						
Weistuch & Lewis (1985)	Pre-post interventions design - with random assignment to intervention and delayed treatment	10 children with Down Syndrome (mean age 42.1 months) 10 non	8 weeks 2 hourly workshops per week	To increase maternal understanding of principles of language development	Greater increase in interactions in time and rate of topic expansion than control group.	

	groups.	handicapped children (mean age 22.1 months) Half of each group selected to receive intervention		and role adult speech plays. To increase maternal ability to respond contingently, verbally map objects, events and actions that their child sees and hears.		
McConkey & O'Connor (1982)	Pre-post intervention design with no control group.	18 children (age range 3.3 – 7.1 years) 14 Down Syndrome and 4 unknown aetiology	7 weeks 1 group session per week Homework activities	Focuses on the formation of two word sentences and associated widening of vocabulary at this time. Emphasis on the interactional aspects of language and need for parents to monitor own use of language. Aims to extend child's learning	Increase in declarative statements and increased responsiveness to child's speech following intervention.	Increase in use of spontaneous language and increase in % of words referring to actions following intervention.

						to a wide variety of situations.			
<i>Individual and one to one sessions</i>									
Girolametto (1988)	Pre-post intervention design - with random assignment to intervention and delayed treatment groups	9 intervention group (age range 22-62 months) – 5 down syndrome and 4 mixed aetiologies. 11 control group (age range 15-59 months) – 6 Down Syndrome and 5 mixed aetiologies.	11 weeks 8 group sessions in clinic 3 home visits per family	Using conversational behaviours in the context of activities, following the child's lead, responding contingently, promoting turn taking and conversational repairs.	Greater increase in % of responsive turns and decreased topic control than control group.	Greater increase in communicative turns and verbal turns than control group.			
Girolametto et al. (1994)*	Pre-post intervention design - with random assignment to intervention and delayed treatment groups.	7 intervention group (mean age 26 months) – 4 males and 3 females – 2 with Down Syndrome and 5	12 weeks 9 group sessions in clinic 3 home visits per family	Increasing child participation in interactions by following child's lead and responding contingently to	Increased level of joint engagement than delayed treatment group.	Increased levels of joint engagement than delayed treatment group.			

Tannock et al. (1992)	Pre-post intervention design - with random assignment to intervention and delayed treatment groups.	with unknown aetiology 7 control group (mean age 31 months) 5 males – and 2 females – 2 Down Syndrome and 5 unknown aetiology.	12 weeks 9 group sessions in clinic 3 home visits per family	child's focus Taught mothers to use interaction- promoting, language modelling and child-oriented strategies.	Greater increase in responsive strategies and decrease in directiveness than delayed treatment group.	Greater increase in vocal turns than delayed treatment group.
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		(mean age 20 months)					
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* Girolametto et al. (1994) analysed a subset of participants from Tannock et al (1992)

Chapter 2 - Major Research Project

The Influence of Staff Communication Style on Service User Response – An
Exploratory Study

The Influence of Staff Communication Style on Service User Response – An
Exploratory Study

Running title: Staff Communication and Service User Response

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To be submitted to: *Journal of Applied Research in Intellectual Disabilities* (see
Appendix 1)

Abstract

Background Support staff can be considered to play a key role in encouraging and developing opportunities for adults with an intellectual disability to communicate. Specifically, staff communicative styles, such as directiveness and responsiveness, may play a key role in promoting or inhibiting the communicative responses of service users. The present study explored this relationship further.

Method The communicative process between 28 staff and service user dyads was analysed in a naturalistic context. Videotaped observations were coded in order to investigate the levels of directive and responsive turns taken by staff and the resultant effect on the service user's communicative response.

Results Staff members' interaction style was found to be predominantly directive and was correlated with lower levels of service user ability and less staff experience. Moreover, results highlighted that staff interaction style did not affect the subsequent response of the service user. However, such results were found to mask large individual variations in the sample.

Conclusion The way in which staff interact with service users is a complex process, which may vary according to the characteristics of the dyad. Thus, both responsive and directive styles may have a role in encouraging service user participation.

Keywords: Communication, interaction, intellectual disability, support staff, day centre

Introduction

Hallas et al. (1982) noted that communication disorders may be the most common, yet least addressed difficulty amongst the adult intellectual disability population. Whilst prevalence rates of communication disorders in adults with an intellectual disability vary across studies, these are generally found to be high, at 61-82% (Bartlett and Bunning, 1997) and 78% (Parker & Liddle, 1987). It was noted by Sigafoos et al. (2007) that individuals with a mild intellectual disability typically experience delays in aspects of language use, such as multi-word utterances, as well as pragmatic functions, including developing conversational turn taking skills. Moreover, it is often the case that more than one aspect of communicative ability is impaired. Van der Gaag and Dormandy (1993) suggested that such difficulties with communication can contribute to low self esteem, social isolation, and learned habits of compliance. Furthermore, it has been highlighted that individuals with communication problems may be more likely to display challenging behaviours (Chamberlain et al., 1993; Kevan, 2003; Smidt et al., 2007).

Thus, it would seem that communication is an important factor for consideration in relation to the support and delivery of services for people with an intellectual disability by paid support staff. On the whole, support staff play an important role in the development and maintenance of service users' communication skills, including creating effective opportunities for individuals to communicate (Grove et al., 1999). Within the context of community-based day centres, many of a service user's daily interactions will be with staff members. Recent research

has highlighted that the way in which staff members interact with service users may impact on their communicative response and on the long term progression of their communicative skills (Bartlett and Bunning, 1997; McConkey et al., 1999a, b; Bradshaw, 2001).

Additionally, Leudar (1989) reported that many factors influence how successful a communicator an individual with an intellectual disability might be. These include the communication environment, the opportunities that the individual has to develop their communication skills, as well as the knowledge and experience of their communication partner. This is based on the idea that communication is considered to develop as a function of the interaction between two people, rather than from the ability of just one individual (Purcell et al., 1999).

Historically, as the deficit in communication was viewed to be with the intellectually disabled adult, interventions focussed on providing them with ways to improve their communication skills (McConkey, 1999a). However, it has since been proposed that the most effective way to improve the communicative process may be for the non-disabled individual to adapt their communication to meet the needs of their partner (Butterfield and Arthur, 1995).

Existing evidence, however, indicates that support staff may struggle to adapt their communication to the needs of their partner (Bartlett and Bunning, 1997; Bradshaw, 2001). Specifically, the member of staff's typical interactive style, such as their level of directiveness or responsiveness, has been highlighted as a

possible barrier to change. Kaye and Charney (1980) defined directiveness as a communicative act that requires a response from another person. Typically, these are in the form of requests or questions, which carry maximum summoning power to elicit a response from the conversational partner. Conversely, a responsive communication style is assumed to include more comments and acknowledgments, thereby allowing your partner time to respond and resulting in equally balanced turn taking.

It has been proposed that support staff may engage in a predominantly directive style when communicating with adults with an intellectual disability. For example, Paton and Stirling (1974) noted that, in institutional settings, the majority of interactions between staff and residents with an intellectual disability were directive questions and requests, with low levels of associated conversation rates. More interestingly, it was found that despite conversation initiations eliciting the most verbal responses from residents, this was the least used type of interaction by staff (Prior et al., 1979). This finding was also supported by McConkey et al. (1999b) who noted that support staff tended to engage in a predominantly directive style, which they described as a 'teaching strategy'.

Consequently, training interventions have been devised in an attempt to alter the interactive style of support staff. Such training has focussed on encouraging staff members to be more responsive when interacting with adults with a learning disability. On the whole, training staff in the use of responsive communication has been found to have positive effects on the development of

service users' communication skills. For example, Nind (1996) demonstrated that by encouraging support staff to use a more responsive style with adults with a severe intellectual disability, service users showed more interactive behaviours and initiated more social contact. Furthermore, following staff training, Money (1997) observed an increase in the use of gestures, signs, and symbols to supplement speech. This training also resulted in an increase in the conversational responses by service users and a decrease in their silent responses.

Extensive research into the function of directive and responsive communication styles has been carried out within the child development literature (Maurer and Sherod, 1987; Mahoney, 1988; Tannock, 1988). Broadly, this has investigated the role of parental communication style on the development of children's communicative ability. At present, a debate exists as to the appropriate level of directiveness required to provide an optimal learning environment, and what level constitutes excessive control, resulting in possible detrimental effects (Marfo, 1990). On one hand, directive communication is considered vital in order to engage children and maintain active involvement in interactions (Crawley and Spiker, 1983). However, it has been highlighted that an overly directive style may not be optimal for promoting communicative development and may decrease the likelihood of the less able partner responding. In particular, Siegel and Cunningham (1984) suggested that a predominantly directive style might inhibit natural communication and limit spontaneous verbal responses from children.

In extending this research literature, the present study aimed to investigate how the typical communication style of day centre support staff may affect the responses of adults with an intellectual disability. In particular, it aimed to explore whether support staffs' communication style affects the communicative response of intellectually disabled adults during conversational interactions. Specifically, levels of staff directiveness and staff responsiveness were examined during naturally occurring interactions in order to determine the communication style that is optimal for encouraging service user participation. Naturalistic settings were chosen in order to maximise the ecological validity of the findings. As noted by Frant Hecht et al. (1993), the type of activity completed in communication research may have an effect on the interaction itself; specifically, contrived situations are less likely to produce reliable results. Structured situations were chosen as these are also considered to provide higher rates of interaction than unstructured situations (see Prior et al., 1979).

Hypotheses

Based on previous research, it was hypothesised that the service user's communicative response will be influenced by the communicative style of the staff member (i.e. their level of directiveness or responsiveness). Specifically, it was hypothesised that:

- 1) Increased levels of directiveness will inhibit service users' verbal output whilst responsiveness will promote it.

- 2) Service user ability will affect staff communication style, with staff engaging in a more directive style with those service users with the greatest communication needs.

In addition, other characteristics such as the staff experience were investigated to determine if this affects communication style.

Materials and Method

Participants and Recruitment

A total of 56 participants, 28 service user and staff member dyads (i.e. pairs), were recruited for the present study. All participants either attended or worked at community-based day centres within the NHS Greater Glasgow and Clyde area. Six of these were statutory services and the remaining two were operated by charities. For the purposes of the present study, all centres where the management indicated a willingness to cooperate were approached. The researcher initially met with the day centre managers in order to identify service users who would meet the inclusion criteria. The inclusion criteria for service users were that they had a mild/moderate intellectual disability and English was their first language.

Individuals with no form of verbal speech, severe sensory impairments (e.g. hearing or sight problems) or individuals who displayed challenging behaviour were not included in the study. It has been demonstrated in other research that such behaviours may affect the ability of the service user to engage in an

activity with the staff member (Kevan, 2003). Similarly, individuals diagnosed with an Autistic Spectrum Disorder were also excluded from the study as they may have specific social cognitive deficits that impact on their ability to engage in reciprocal conversation (Wing and Gould, 1979).

Based on the discussions with managers, the researcher then met with the identified service users and staff members to outline the study and explain what would be required if they participated. Service users were provided with an information sheet on the study (Appendix 2.1) and those who consented to participate completed a consent form (Appendix 2.2). The service user then identified a staff member whom they would routinely work with and had known for at least 6 months. The identified staff member was then approached to determine if they wished to participate. All staff members identified consented to being involved in the study. The demographics of the service user and staff participants are summarised in Table 1.

Insert Table 1 about here

Of the 28 service users that participated in the study, 12 of them were female and 16 were male. Their average age was 34 years.

Additionally, of the 28 staff members that took part in this study, the majority were female (n=22) and their average age was 40 years. The mean length of

time that the staff members had worked with adults with a learning disability was 9 years 10 months, ranging from 2 years to 21 years. Four staff had no formal qualifications. The remaining staff had a range of qualifications. Eighteen members of staff had completed SVQ qualifications relevant to working with people with intellectual disabilities, 2 had completed undergraduate psychology degrees, 1 had a degree in social work, and 3 members of staff had teaching qualifications.

Measures

The following measures were completed by staff members in the order that they are described.

1) Demographic Information Sheet

In order to control for staff variables that might influence the interaction, staff members were asked to complete a demographic information sheet (Appendix 2.3). This covered their current post; length of service; relevant qualifications, and their age.

2) Rating of Relationship Sheet

In order to control for quality of the relationship between the dyad, staff participants were asked to provide information regarding their relationship with the service user with whom they worked (Appendix 2.4). This included how long they had worked with the service user (months), their level of contact (e.g. daily, weekly), and a rating of their relationship on a 5-point Likert scale (1 = *very negative* to 5 = *very positive*).

3) *Assessment of Communication*

a) Vineland Adaptive Behaviour Scale (VABS)

The VABS (Sparrow et al., 1984) is a reliable and valid measure of adaptive behaviour skills in adults with intellectual disabilities. It is composed of four domains: communication, daily living skills, socialisation, and motor skills. Staff members completed the communication domain, in order to examine the impact of the communicative ability of the service user in the present study. The three further domains were not completed as it was considered that day centre staff would not necessarily have sufficient information to reliably report on service users' wider skills (e.g. daily living skills).

b) Communication Assessment Profile (CASP)

The CASP (Van der Gaag, 1988) is a UK standardized communication assessment for adults with intellectual disabilities. The CASP assesses an individual's understanding and use of language and the communication environment and was used in the present study to investigate the communicative ability of service user participants. For the purposes of this study, the carers assessment was utilised. The CASP is a reliable and valid clinical tool able to measure communication skills with accuracy and is sensitive to differences between adults living in hospital and community settings (Van der Gaag and Lawler, 1990).

Procedure

Firstly, staff members were asked to complete the Demographic Information Sheet and Rating of Relationship Sheet in a private room in their day centre.

Secondly, video observations were carried out with the service user and staff member interacting in naturalistic conditions.

Each dyad was videotaped interacting in a familiar setting within their day centre. The activities were naturally occurring and chosen in advance from the service users' existing timetable at the day centre. The chosen activity was defined as a 'shared activity', where the staff member would routinely support the service user in the completion of a task or activity. The decision on which activity to choose was made jointly by the service user and staff member. In total, 13 dyads completed an arts and craft activity, 7 dyads completed cooking/baking activities, 4 dyads completed computer based activities, and 4 dyads literacy/numeracy activities.

To familiarise staff and service users to the presence of the recording equipment, they initially spent 5 minutes in the room with the video recorder set up. No recordings or observations were made for the duration of this time. The researcher interacted freely with the dyad during this period, before withdrawing prior to the commencement of recording. The staff members and service users were given no instruction other than to interact as normal. The dyad was then informed when the recording began and were informed that they would be recorded for 10 minutes. The staff member and service user were then videotaped interacting for a 10 minute period. After 10 minutes, the video recorder was stopped and the researcher informed the dyad that recording had ceased. The researcher then withdrew, leaving the dyad to complete their activity as normal.

The researcher then met with the staff member on a second occasion in order to complete the Vineland Adaptive Behaviour Scale (Sparrow et al., 1984) and the Communication Assessment Profile (Van der Gaag, 1988).

Coding and Analysis

The videotaped interactions were transcribed in their entirety to record the behaviour of the staff member and service user, including dialogue, gestures (e.g. pointing and nodding), actions (e.g. picking up, throwing), and the direction of eye gaze (when not concentrated on own or partners activity). This data was entered into a Microsoft Excel spreadsheet. The data was coded by the researcher using a coding system developed for use in examining the reciprocal nature of interaction between mothers and their children (Tannock, 1988). Figure 1 outlines the flowchart of the coding system.

Insert Figure 1 about here

At the first level of analysis, the communication of each individual is classified into whether the individual communicates by responding verbally (a turn), or not responding at all (a missed turn). If an individual misses a turn this can be categorised as a *parallel* turn where the individual engages silently in an activity, or a *monitor* turn where the individual makes no clear response but shows shared focus through eye gaze. If the individual misses a turn and makes

no communicative response to their partner, this is classed as uninvolved (*ignore*).

If an individual's response is categorised as a communicative turn, this is further divided into those that share the focus of their partner (a response) and those that aim to switch the focus of their partner (a switch). The switch may *initiate* a new topic or *continue* on a topic the individual had previously raised. All communicative responses are categorised into those that carry maximum summoning power to solicit a response from the partner (e.g. incorporate a question, request or suggestion - coded *oblige*), or those that carry minimum summoning power (e.g. acknowledgements, statements - coded as *comments*).

Codes identifying each type of turn for both the service user and staff member were entered into the Microsoft Excel spreadsheet.

Reliability of coding

The researcher initially coded all 28 transcripts. The reliability of the coding system was established by an independent rater (Clinical Psychologist). The rater was trained by the researcher in the use of the coding system. Reliability was established by selecting random 2 minute samples from half of the dyads 10 minute recordings (10% of the data). The rater independently coded these samples and inter-rater reliability coefficients were calculated using Cohen's Kappa. The mean inter-rater reliability coefficient across all communicative responses was 0.86. Inter-rater reliability for individual dialogue categories were as follows: response oblige: 0.87; response comment: 0.94; silent monitor: 0.79;

silent parallel: 0.91; and, ignore: 0.8. Suen (1989) suggests that a Kappa value of 0.6 or higher is acceptable for observational research.

Results

The distribution of the data was examined using a one sample Kolmogorov-Smirnov test. The significant values indicated that the data from all measures did not represent a normal distribution (VABS: $Z=1.514$, $p<0.05$; CASP: $Z=1.148$, $p<0.05$). Therefore, data analyses were carried out using non-parametric tests.

Data analysis was carried out in three stages. Firstly, an overview is given of the communicative process, including the quantity and type of both communicative turns and missed turns demonstrated by staff and service users. In order to control for the observed differences in overall turns taken by each dyad, comparisons are based on the percentage of each turn type taken in 10 minutes.

The second stage of analysis presents descriptive data from each of the measures as well as any associations with the staff communication style, in order to investigate the impact of control variables.

The third and final stage of the analysis presents the conditional probabilities of service user's responses, given the antecedent turn type of the staff member. In order to answer the research question, these probabilities will be analysed to determine if the communication style of the staff member affects the subsequent

communication of the service user. In addition, qualitative data will be presented in order to provide examples of the different communication styles used by staff and the subsequent effect on the response of service users.

Description of Communication Process

Overview of communicative turns

In 10 minutes, on average 183 communicative turns were exchanged per dyad (range 98-270).

Insert Table 2 about here

As seen in Table 2, analysis indicated that staff members made significantly more *communicative turns* ($z=4.623$, $p<0.01$) than the service users. Of the communicative turns, staff were found to take significantly more *oblige* turns than service users ($z=4.623$, $p<0.01$). Conversely, service users were found to take significantly more *comment* turns than staff members ($z=2.915$, $p<0.01$). In terms of missed turns, as seen in Table 2, service users were found to show significantly more missed turns than staff members ($z=4.623$, $p<0.01$). Of these missed turns, service users made significantly more *parallel*, as well as *monitor* turns ($z=4.624$, $p<0.01$; $z=4.227$, $p<0.01$) than staff members.

i. Staff turns

In terms of communicative turns, staff were found to take more directive (*oblige*) than responsive (*comment*) turns ($z=3.188$, $p<0.01$). The staff members were found to show very low levels of missed turns (i.e. *silent* and *parallel*

turns), with no significant differences found between types of missed turn. In addition, staff were observed to make very few switch turns, with percentage counts of *initiate* and *continue* turns having means of less than 1.

ii. Service User turns

Service users made over 10 times as many *comment* turns as *oblige* turns ($z=4.623$, $p<0.01$). In terms of missed turns, service users were found to take significantly more *parallel* turns, than *monitor* turns ($z=4.601$, $p<0.01$). Similar to staff members, service users were found to make very low levels of *switch*, and subsequently *initiate* turns. Again, as numbers of these were so low, they did not permit statistical analyses.

Descriptive Data from Measures and Associations with Staff Communication

Style

1) Demographic Information Sheet

Insert Table 3 about here

Analyses indicated a significant correlation between the experience of the staff members and the percentage of *oblige* turns and *comment* turns respectively ($r=-0.437$, $p<0.05$; $r=0.51$, $p<0.01$). That is, those staff members with more experience of working with adults with an ID were found to be less directive

(i.e. show fewer *oblige* turns), when the overall number of turns were controlled for. No other significant correlations were found.

2) *Rating of Relationship*

Using a simple 5-point Likert scale, all staff members rated their relationship with the clients as very positive (5). Therefore, it was not considered appropriate to investigate associations between these ratings and staff communication style.

3) *Assessment of communication*

a. Vineland Adaptive Behaviour Scale (VABS)

Scores on the VABS indicated that service users' communicative ability was in the mild to moderate range of communicative ability (mean score 89, range 51 to 104).

Table 3 shows that, as expected, the service users raw scores on the VABS were highly correlated with the raw scores on the CASP ($r=0.842$, $p<0.01$). Furthermore, a moderate correlation was found between service user VABS score and staff *oblige* turns ($r= -0.50$, $p<0.01$), as well as service user VABS score and staff *comment* turns ($r=0.48$, $p<0.01$). In other words, when service users had lower levels of communicative ability, staff were found to be more directive and, hence, less responsive.

b. Communication Assessment Profile (CASP)

Table 3 indicates that when the overall number of turns were controlled for, a moderate negative correlation was found between the service user scores on the CASP and staff percentage of *oblige* turns ($r= -0.66$, $p<0.01$). Similarly, staff

comment turns were also found to correlate with service users' CASP score ($r=0.68$, $p<0.01$). That is, staff were found to be more directive, and less responsive, with those service users with greater communication needs.

Effect of Staff Communication Style on Service User Response

As Table 4 shows, there was no significant difference between the conditional probability of the staff member making an *oblige* turn and the service user responding with an *oblige* turn (mean 0.03) or *comment* turn (mean 0.04). Similarly, staff members' use of *comment* turns did not affect the type of turn taken by the service user (mean *oblige* 0.55; mean *comment* 0.49).

Insert Table 4 about here

Furthermore, when the staff member made a parallel turn, there was no effect on the conditional probability of the service users response (mean *oblige* 0.34; mean *comment* 0.35). Results also indicate that the staff making a silent *monitor* turn did not alter the conditional probability of the service user response (mean *oblige* 0.10; mean *comment* 0.13).

Additional Qualitative Data

Whilst statistical significance was not achieved in relation to the examined conditional probabilities, it is worth noting that there was large variability within

the sample (see ranges presented in Table 4). That is, in some circumstances there was a close relationship between staff's use of responsive turns and an increase in service user response; however, on other occasions this relationship was not seen. Therefore, the following examples of dialogue are provided in order to illustrate the differences and variation in the staff communication styles and the subsequent responses of the service users. Whilst this is by no means a comprehensive summary, these examples provide an overview of the way in which staff utilise the different communicative styles within their work with people with an ID.

Staff use of responsive turns

Insert Table 5.1 about here

As highlighted in the example provided in Table 5.1, a responsive communication style was often used with the service user to encourage their participation in the activity. In this example, the staff member makes a series of comments which allows the service user to choose how to respond.

Staff use of directive turns

Insert Table 5.2 about here

However, as seen in Table 5.2, a directive communication style was also employed by staff in order to encourage a verbal response from the service user. Most often, this was in the form of direct questions to which service users would give single word ('yes' or 'no') answers.

Insert Table 5.3 about here

Table 5.3 presents a commonly observed scenario where the staff member's directive style is seen in the form of prompts and instructions, rather than direct questions. The staff member provides the service user with a series of instructions which they silently carry out. Such an approach resulted in the service user having little opportunity to respond verbally and resulted in almost entirely silent participation in the activity.

Staff use of varying turns

Insert Table 5.4 about here

Table 5.4 presents a mixture of the above styles. In this example, the staff member is using a generally responsive style with the service user to encourage them in completing the activity. However, despite being engaged in the task, the service user did not responding verbally to such an approach. The staff member

then subsequently uses a directive turn, in the form of a question, in order to verbally engage the service user.

Discussion

With regard to the hypothesised association, the current study indicates that the communication style of staff members did not affect the communicative response of the service user. Contrary to the predicted relationship (i.e. that responsive communication would promote communicative responses), it was found that both directive and responsive communication styles resulted in similar responses from the service users.

Overall, staff participants were found to show very low levels of missed turns. That is, they almost always responded with a verbal communicative turn. With regard to the type of turn taken, results indicated that staff members took significantly more directive (i.e. *oblige*) turns than responsive turns (i.e. *comment*). Despite this, such directive turns were not more likely to produce a response from the service user. As highlighted above, both directive and responsive turns were found to produce a similar pattern of responses.

In contrast to the type of turns taken by staff, service users were found to respond most frequently to staff communicative turns by taking a responsive (i.e. *comment*) turn and conversely showed very low levels of directive (i.e. *oblige*) turns. Moreover, service users were found to show relatively high levels

of *parallel* turns. That is, they responded to staff communication by silently participating in the activity but did not make a verbal communicative turn.

When examining other associations, analyses indicated that staff directiveness was associated with level of service user ability, with staff engaging in a more directive style with less able service users. Such correlations have been consistently found in studies investigating interaction levels of support staff (Perry and Felce, 2003). Purcell et al. (1999) noted that staff might struggle to adapt their communication to the needs of the service user, especially when interacting with individuals who have greater communicative needs.

In addition, level of staff experience was found to correlate with staff directiveness, with the most experienced staff taking fewer directive turns. Banat et al. (2002) suggest that more experienced staff may have an increased ability to adapt their communication and rely less on an overly directive style.

Hence, the function of directive and responsive communication styles is still somewhat unclear. As indicated in excerpts from the dyad dialogues, both styles were found to promote, as well as inhibit, communicative responses from the service users. Similar to findings within the child development literature, responsive communication appears to play a role in encouraging spontaneous communication (Mahoney and Powell, 1988). However, it is apparent that some service users show such little spontaneous communication that, in order to maintain their verbal engagement in activities, staff may engage in a more directive approach. Therefore, staff directiveness may not only vary as a

function of the service user's communicative ability, but also as their behaviour, specifically, with regard to their level of participation in the interaction. However, the level at which directive communication becomes detrimental to the service user's opportunities to communicate remains unclear.

Limitations of the Study

Clearly, the present study has several limitations which may impact on the conclusions drawn and the lack of hypothesised associations. Firstly, due to the exploratory nature of the study, the sample size was relatively small. In addition, analysis of the results indicated that the group means masked a large variation within individual dyads. It is noted that such large variation is often reported in communication research of this nature (McConkey et al., 1999a). Whilst a full qualitative analysis would have been helpful, this was considered outwith the scope of the present study. However, a more rigorous qualitative approach might allow more careful consideration of the variability frequently present within this type of research.

Secondly, the present study made comparisons across staff and service users interacting in different situations. Whilst use of the same situation was considered in an attempt to control for the variation across tasks, it was decided that the ecological validity of the study was of primary importance and, therefore, naturally occurring situations were chosen. Furthermore, past research has indicated that contrived or novel situations may increase service user anxiety and hence result in the communication process being impaired (Frant Hecht et al., 1993). As dyads were completing an activity that was familiar, it

was anticipated that this would provide a more reliable sample of 'everyday' communication. It is noted that both staff and service users may experience some anxiety regarding the presence of a video recorder; yet it was not considered that either party were adversely affected by the presence of the equipment. Moreover, informal observations of dyads carried out within day centres indicated similar patterns of interactions. However, as noted by McConkey et al. (1999a), directive turns tend to be found more often in shared activities and instructional settings rather than in social chat sessions. Therefore, the nature of the situations in which the dyads were studied may have impacted on the communicative style of the staff member. It may be the case that a more responsive communication style would have been found in more conversational type 'social chats'.

Thirdly, limitations can be identified with regard to the coding system used. It is noted that other more complex analysis systems are available, however, the present system provided the required information for the research question to be answered. It was developed specifically to investigate the reciprocal nature of communication, namely levels of directiveness and responsiveness and was considered appropriate for the exploratory characteristics of this research. It is noted, however, that the nature of the coding system resulted in directiveness and responsiveness being considered mutually exclusive. As such, this resulted in limitations in interpretations of the results and, specifically, should be considered when interpreting the correlation data. Hence, it may have been beneficial to use a coding system that could differentiate between the turn types in more detail, representing the mutuality of dialogue.

Future Research

Based on the exploratory findings from this research it is possible to identify areas for future research. It is apparent that within day centres, staff are increasingly taking on wider roles and having rising demands placed on them. Such factors may impact on their ability to spend one-to-one time with service users. Therefore, as noted by Dobson et al. (2002), given more time and resources, staff may be better placed to adapt their communication and gain a greater understanding of the needs of the service user. Additionally, informal observations suggest that day centres are increasingly focussed on completing activities rather than evaluating what the service user is gaining from their experience. Moreover, Ferguson (1994) highlighted that the lack of clarity regarding the role of support staff may impact on the way in which staff engage with service users. In particular, there is some ambiguity regarding the role of staff members within day centres (Bartlett and Bunning, 1997). This relates to the degree to which staff consider themselves to be responsible for supporting versus teaching the individual. Indeed, the philosophy on this may vary between services and areas as well as individual staff members.

An interesting area for future research may be to investigate staff awareness of their interaction style. Specifically, to what degree this relates to the perception of their role and the way in which they adapt their communication to meet the needs of the service user. In addition, the complex nature of communication research and the variation in individual dyads indicates that a qualitative framework may be a beneficial way of investigating such a process.

Clinical Implications

Finally, the present study highlights clinical implications pertinent to this area of research. In order to develop the skills and opportunities of adults with an intellectual disability, it is vital that staff communicate in a way that encourages participation. As noted, previous studies have indicated that training staff to be more responsive can have a positive impact on the subsequent communication of the service user (Nind, 1996). Van der Gaag (1998), however, highlighted that it is vital that such training is tailored to the individual needs of the staff group and service users with whom they are interacting. Clearly, understanding the different purposes that directiveness can serve is crucial in developing such training (Marfo, 1990). Moreover, rather than being taught how to interact, it may be beneficial for staff to learn how their natural interaction styles can be altered to meet the needs of service users. Specifically, encouraging staff to develop communication styles which provide service users with the opportunity to respond may be important in enhancing the quality of life of adults with an intellectual disability.

Conclusions

At a theoretical level, the present study further highlights the intricate nature of communicating with adults with intellectual disabilities. Whilst the results did not indicate the hypothesised relationship, it provided a valuable insight into the naturalistic communication between staff and service users. In particular, the

variation in results indicates that staff employ different communication styles when interacting with service users.

Such findings also have important practical significance to psychologists working in the field of intellectual disabilities, as a large proportion of their work is delivered via staff members, both in community and residential contexts. In other words, it seems vital that staff are appropriately trained in communication methods, to ensure that they are best able to support service users, and deliver interventions on behalf of other professionals. Indications from the present research would suggest that such training must encompass the wide variation in the abilities of service users, and aid staff in identifying the appropriate interaction style for each individual. The implications of providing opportunities for adults with an intellectual disability to communicate more effectively are significant. For example, improved communication is likely to impact on the quality of life of people with an intellectual disability, including establishing and maintaining relationships and engaging in leisure activities and employment.

In summary, the findings from the present study indicate that staff interaction style is a complex phenomenon which may vary according to contextual, service user and individual factors. These factors need to be explored in future research in order to build a more comprehensive model of the interplay between support staff communication and service user response. By continuing to explore this relationship, there is potential to increase the understanding of basic

communication and how best to promote and support the communication of individuals with an intellectual disability.

References

Banat, D., Summers, S. & Pring, T. (2002) An investigation into carers' perceptions of verbal comprehension ability of adults with severe learning disabilities. *British Journal of Learning Disabilities*, 30, 78-81.

Bartlett, C. & Bunning, K. (1997) The importance of communicative partnerships: A study to investigate the communicative exchanges between staff and adults with learning disabilities. *British Journal of Learning Disabilities*, 25, 148-153.

Bradshaw, J. (2001) Complexity of staff communication and reported level of understanding in adults with intellectual disability. *Journal of Intellectual Disability Research*, 45(3), 233-243.

Butterfield, N. & Arthur, M. (1995) Shifting the focus: Emerging priorities in communication programming for students with severe intellectual disability. *Education and Training in Mental Retardation and Developmental Disabilities*, 30, 41-50.

Chamberlain, L., Cheung, M. & Jenner, L. (1993) Preliminary findings on communication and challenging behaviour in learning difficulty. *British Journal of Developmental Disabilities*, 29, 118-125.

Crawley, S. & Spiker, D. (1983) Mother-child interactions involving two year olds with Down syndrome: A look at individual differences. *Child Development*, 54, 1312-1323.

Dobson, S., Upadhyaya, S. & Stanley, B. (2002) Using an interdisciplinary approach to training to develop the quality of communication with adults with profound disabilities by care staff. *International Journal of Language and Communication Disorders*, 37(1), 41-57.

Ferguson, D.L. (1994) Is communication really the point? Some thoughts on intervention and membership. *Mental Retardation*, 32, 7-18.

Frant Hecht, B., Levine, H.G. & Mastergeorge, A.M. (1993) Conversational roles of children with developmental delays and their mothers in natural and structured situations. *American Journal on Mental Retardation*, 97(4), 419-429.

Grove, N., Bunning, K., Porter, J. & Olsson, C. (1999) See what I mean: Interpreting the meaning of communication by people with severe and profound intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities*, 12(3), 190-203.

Hallas, C., Fraser, W. & McGillivray, R. (1982) *The Care and Training of the Mentally Handicapped*. Edinburgh: Wright.

Kaye, K. & Charney, R. (1980) How mothers maintain dialogue with two year olds. In: *The social foundation of language and thought: Essays in honour of Jeome S. Bruner* (Ed. P. Olson), pp. 144-162. New York: Norton.

Kevan, F. (2003) Challenging behaviour and communication difficulties. *British Journal of Learning Disabilities*, 31, 75-80.

Leudar, L. (1989) Communication environments for mentally handicapped people. In: *Language and Communication in Mentally Handicapped People*. (Eds Beveridge, M., Conti Ramsden, G. & Leudar, L.) pp 274-299. Chapman and Hall: London.

Mahoney, G. (1988). Maternal communication style with mentally retarded children. *American Journal of Mental Deficiency*, 92, 352-359.

Mahoney, G. & Powell, A. (1988) Modifying parent-child interaction: enhancing the development of handicapped children. *The Journal of Special Education*, 22(1), 82-96.

Marfo, K. (1990) Maternal directiveness in interactions with mentally handicapped children: An analytical commentary. *Journal of Child Psychology and Psychiatry*, 31(4), 531-549.

Maurer, H. & Sherod, K. (1987) The context of directives given to young children with down syndrome and non-retarded children: Development over two years. *American Journal of Mental Deficiency*, 91, 579-590.

McConkey, R., Morris, I. & Purcell, M. (1999a) Communications between staff and adults with intellectual disabilities in naturally occurring settings. *Journal of Intellectual Disability Research*, 43(3), 194-205.

McConkey, R., Purcell, M. & Morris, I. (1999b) Staff perceptions of communication with a partner who is intellectually disabled. *Journal of Applied Research in Intellectual Disabilities*, 12(3), 204-210.

Money, D. (1997) A comparison of three approaches to delivering a speech and language therapy service to people with learning disabilities. *European Journal of Disorders of Communication*, 32 (4), 449-66.

Nind, M. (1996) Efficacy of intensive interaction: developing sociability and communication in people with severe and complex learning difficulties using an approach based on caregiver-infant interaction, *European Journal of Special Needs Education*, 11, 48-66.

Parker, M. & Liddle, K. (1987) The communication needs of the mentally handicapped population in West Berkshire: A survey. *College of Speech and Language Therapists Bulletin*, 428, 1-2.

Paton, X. & Stirling, E. (1974) Frequency and type of dyadic nurse-patient verbal interactions in a mental subnormality hospital. *International Journal of Nursing Studies*, 11, 135-145.

Perry, J. & Felce, D. (2003) Quality of life outcomes for people living in staffed community housing services: A stratified random sample of statutory, voluntary and private agency provision. *Journal of Applied Research in Intellectual Disabilities*. 16, 11-28.

Prior, M., Minnes, P., Coyne, T., Golding, B., Hendy, J. & McGillivray, J. (1979) Verbal interactions between staff and residents in an institution for the young mentally retarded. *Mental Retardation*, 17, 65-69.

Purcell, M., McConkey, R. & Morris, I. (1999) Staff perceptions of the communicative competence of adults persons with intellectual disabilities. *British Journal of Developmental Disabilities*, 45, 16-25.

Siegel, L. & Cunningham, C. (1984) Social interactions: A transactional approach with illustrations from children with developmental problems. In: *New Directions for Child Development*. (Eds. A. Doyle, D. Gold & D. Moskowitz), pp. 85-98. San Francisco: Jossey-Bass.

Sigafoos, J., O'Reilly, & Green, V. (2007) Communication difficulties and the promotion of communication skills. In: *The Handbook of Intellectual Disability*

and Clinical Psychology Practise. (Eds. Carr, A., O'Reilly, G., Noonan), pp. 606-642. Routledge, Sussex.

Smidt, A., Balandin, S., Reed, V. & Sigafoos, J. (2007) A communication training program for residential staff working with adults with challenging behaviour: Pilot data on intervention effects. *Journal of Applied Research in Intellectual Disabilities*, 20, 16-29.

Sparrow S. S., Balla, D.A. & Cicchetti, D.V (1984) *Vineland Adaptive Behaviour Scales: Interview Edition*. American Guidance Service, MN.

Suen, H.K. & Ary, D. (1989) *Analysing quantitative behavioural observational data*. Hillside, NJ: Laurence Erlbaum Associates.

Tannock, R. (1988) Mothers' directiveness in their interactions with their children with and without Down Syndrome. *American Journal on Mental Retardation*, 93(2), 154-165.

Van der Gaag, A. (1988) *The Communication Assessment Profile (CASP)*. London: Speech Profiles.

Van der gaag, A. (1998) Communication skills and adults with learning disabilities: Eliminating professional myopia. *BILD Keynote Reviews: British Journal of Learning Disabilities*, 26, 88-93.

Van der Gaag, A. and Dormany, K. (1993) *Communication and Adults with Learning Disabilities*. London: Whurr.

Van der gaag, A.D. & Lawler, C.A. (1990) The validation of a language and communication assessment procedure for use with adults with learning difficulties. *Health Bulletin*, 48(5), 254-259.

Wing, L. & Gould, J. (1979) Severe impairments of social interaction and associated abnormalities in children: Epidemiology and Classification. *Journal of Autism and Developmental Disorders*, 9(1), 11-29.

Table 1: Demographic Characteristics of staff and service users

Variable	Descriptive
Staff	
Mean age (years)	40 (range 26-55)
<i>Gender</i>	
Male	6
Female	22
Mean time worked in learning disability services	9 years 10 months (range 2 years – 21 years)
Service User	
Mean age (years)	34 (range 21 – 52)
<i>Gender</i>	
Male	16
Female	12
CASP score	29 (range 20-31)
VABS score	88 (range 51-122)

Table 2: Mean percentage (\pm SD) of turn types for staff member and service user participants

Turn Type	Staff	Service User	Wilcoxon Z
Communicative turn total	97.75 (4.52)	55.55 (17.50)	-4.623**
<i>Oblige</i>	56.01 (11.94)	3.76 (2.80)	-4.623**
<i>Comment</i>	41.15 (9.26)	51.08 (16.80)	-2.915**
<i>Continue oblige</i>	0.11 (0.58)	0.27 (2.80)	-
<i>Continue comment</i>	0.30 (0.85)	0.12 (1.18)	-
<i>Initiate oblige</i>	0.18 (0.43)	0.18 (0.99)	-
<i>Initiate comment</i>	0 (0)	0.14 (0.98)	-
Missed turn opportunity total	2.3 (4.88)	44.45 (17.15)	-4.623**
<i>Silent Parallel</i>	1.24 (2.76)	33.01 (15.65)	-4.624**
<i>Silent Monitor</i>	1.01 (3.31)	10.22 (6.97)	-4.227**
<i>Ignore</i>	0 (0)	1.22 (3.93)	-2.251

** p<0.01, *p<0.05

Table 3: Correlations between data from measures and staff turn types

		Direc	Resp	Exp	VABS	CASP
Spearman's rho	Directiveness (<i>oblige</i> turns)	1.000	-.901(**)	-.437(*)	-.501(**)	-.662(**)
			.000	.020	.007	.000
	N	28	28	28	28	28
Responsiveness (<i>comment</i> turns)	Correlation Coefficient		1.000	.511(**)	.479(**)	.684(**)
	Sig. (2-tailed)					
	N					
Experience of staff (months)	Correlation Coefficient			.005	.010	.000
	Sig. (2-tailed)					
	N		28	28	28	28
VABS *	Correlation Coefficient			1.000	.194	.307
	Sig. (2-tailed)					
	N				.323	.111
CASP	Correlation Coefficient					
	Sig. (2-tailed)					
	N			28	28	28
	Correlation Coefficient				1.000	.842(**)
	Sig. (2-tailed)					
	N					
	Correlation Coefficient					.000
	Sig. (2-tailed)					
	N				28	28
	Correlation Coefficient					1.000
	Sig. (2-tailed)					
	N					

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

VABS Vineland Adaptive Behaviour Scales
CASP Communication Assessment Profile

Table 4: Mean Conditional Probability of Service User Response given Antecedent Turn Type of Staff Member

Staff Turn Type	Service User Response		Wilcoxon Z
	Oblige ^a	Comment ^b	
Communicative Turn			
Oblige ^a	0.03 (range 0-0.12)	0.04 (range 0-0.17)	-1.135
Comment ^b	0.55 (range 0.10-0.89)	0.49 (range 0.09-0.82)	-1.664
Turn Opportunity Unit			
Parallel ^c	0.34 (range 0.06-0.72)	0.35 (range 0.09-0.79)	-1.080
Monitor ^d	0.10 (range 0-0.34)	0.13 (range 0-0.33)	-1.322
Ignore	0.01 (range 0-0.06)	0.01 (range 0-0.0-0.12)	-1.476

^a Directive turn

^b Responsive turn

^c Silent participation in activity

^d Prolonged eye gaze but no clear response

Table 51: Example Transcript of Staff Member using Responsive Style which Promotes Service User Response

Dialogue	Code
Staff – <i>it's always easier to break the eggshell into a cup</i>	comment
Service user – <i>(breaking the eggshell into cup) two!!</i>	comment
S – <i>Ah! You've got a double yolk</i>	comment
SU – <i>I hve (smiles)</i>	comment
S – <i>that's very unusual to get a double yolk</i>	comment
SU – <i>wov....that's good</i>	comment
S – <i>usualy it would be a bigger egg, that was just a normal sized egg</i>	comment
SU – <i>aye</i>	comment
S – <i>that vas going to be twins</i>	comment
SU – <i>twins</i>	comment
S – <i>great</i>	comment
SU – <i>all nto the mixing bowl (puts the eggs into the bowl)</i>	comment
S – <i>that's absolutely right</i>	comment
SU – <i>mix it all up now</i>	comment
S – <i>your doing a great job of that</i>	comment

Table 5.2: Example Transcript of Staff Member Using a Directive Style which Promotes Service User Response

Dialogue	Code
S – <i>OK, lts look to see how we do a print preview, see that one, there.... tae one with the magnifying glass, that'll be how it looks when its printed out</i>	oblige
SU – <i>OK, I want it</i>	comment
S – <i>You want it as it is?</i>	oblige
SU – <i>yeah</i>	comment
S – <i>You don't want to change it?</i>	oblige
SU – <i>no</i>	comment
S – <i>Make any spacing or anything?</i>	oblige
SU – <i>no</i>	comment
S – <i>You happy with it like that?</i>	oblige
SU – <i>yeah</i>	comment
S – <i>Do you want to try and print it then?</i>	oblige
SU – <i>yeah</i>	comment
S – <i>You will have to press the print button then</i>	oblige
SU – <i>OK</i>	comment

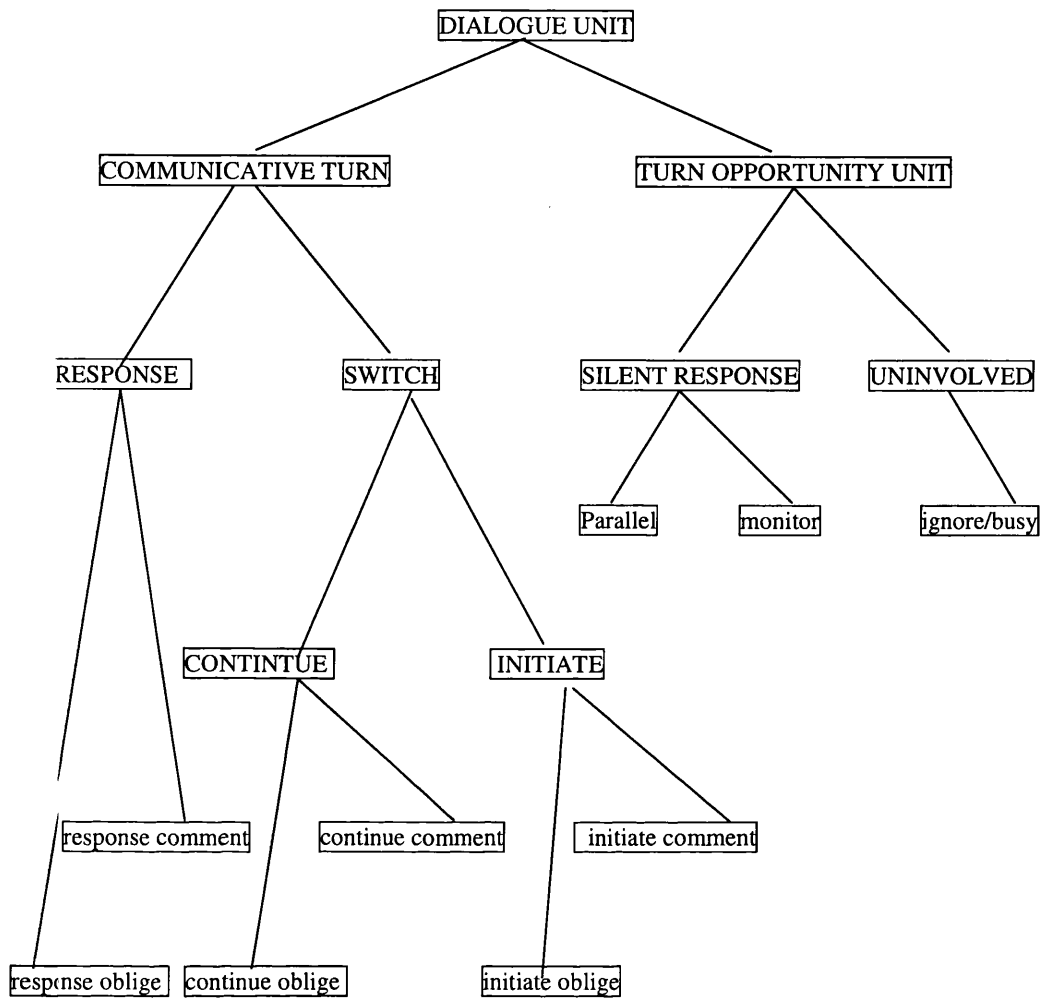
Table 5.3: Example Transcript of Staff Member Using a Directive Style which Inhibits Service User Response

Dialogue	Code
Staff – <i>OK, next again (points at computer screen) just forward it through and say that it finished.</i>	oblige
Service user – <i>(clicks on 'next' button)</i>	parallel
S – <i>OK, that's you, you can switch the camera off</i>	oblige
SU – <i>(switches the camera off)</i>	parallel
S – <i>OK, do 2 clicks on your picture (points to computer screen) and open it up.</i>	oblige
SU – <i>(clicks mouse once on picture)</i>	parallel
S – <i>Two clicks, do two clicks.....</i>	oblige
SU – <i>(slowly clicks mouse twice)</i>	parallel
S – <i>and again, do it really fast this time</i>	oblige
SU – <i>(slowly clicks mouse twice again)</i>	parallel
S – <i>one, two, again...right press the other button and go 'open' up at the top (points to computer screen)</i>	oblige
SU – <i>(clicks on open)</i>	parallel
S – <i>OK, what you want to do is we have to turn the picture round so your gonna have to open 'image' up at the top</i>	oblige
SU – <i>(clicks on image)</i>	parallel
S – <i>click on it again...other side of the mouse, that's it and rotate, can you see which one is rotate?</i>	oblige
SU – <i>(clicks on rotate)</i>	parallel
S – <i>yeah, OK, so now your going to click on OK.</i>	oblige

Table 5.4: Example Transcript of Staff Member Altering Communication Style to Promote Service User Response

Dialogue	Code
Staff - <i>Look at that, fantastic, well done!</i>	comment
Service user - <i>(keeps drilling)</i>	parallel
S - <i>What great control you've got Leonard</i>	comment
SU - <i>(smiles - keeps drilling)</i>	parallel
S - <i>You've done this before haven't you?</i>	oblige
SU - <i>Aye</i>	comment
S - <i>Fantastic, that's excellent</i>	comment
SU - <i>(keeps drilling)</i>	parallel
S - <i>Do you remember what these.....do you remember what that's called?</i>	oblige
SU – <i>eh.....counter sink</i>	comment
S - <i>counter sink, well done</i>	comment
SU – <i>(keeps drilling)</i>	parallel
S - <i>Can you take it out for me if I loosen it?</i>	oblige
SU – <i>Aye (SU removes counter sink)</i>	comment
S - <i>Well done, that's great, thanks very much.</i>	comment
SU – <i>(continues drilling)</i>	

Figure 1: Dialogue Coding System (Tannock, 1988)



Chapter 3 Advanced Clinical Practice I:

Reflective Critical Account (Abstract only)

Abstract

Using Gibbs' (1998) model of reflective practice, I hope to explore some of the feelings arising from my clinical placement in a forensic department. A meeting I attended with my supervisor made me consider the wider issues involved in working with this population. From initially questioning if I was up to the job, a process of reflection led me through an exploration of my own beliefs and principles. From feelings of guilt, to those of fear and empathy, it was important to acknowledge these and allow myself the opportunity to explore why I felt this way.

By drawing on past experiences, literature from forensic practice and discussions with other clinicians, I was able to analyse my responses in more detail. Allowing myself to draw on these sources, as well as my own personal experiences, aided in this process. Arriving at a place where I was comfortable justifying the work I do was achieved through reflection. Furthermore, I became aware that such feelings may arise again in this placement, as well as in other areas of my clinical work. Planning for this and identifying mechanisms for monitoring feelings before they interfere with practice concludes the reflective cycle.

Reflection provided a framework for understanding and challenging my own feelings and beliefs. It is an essential process that I will hopefully continue to utilise throughout my career.

Chapter 4 - Advanced Clinical Practice II:

Reflective Critical Account (Abstract only)

Abstract

In order to develop my reflective skills, I have reflected on what I consider to be a largely positive experience of conducting training for carers of adults with a learning disability. Using Johns' (1994) model of Structured Reflection, I explored the process of being involved in conducting group training and, specifically, how I reacted to issues that arose. Through analysing the process as a whole, I have been able to identify a progression of my skills.

By reflecting on how I responded to such issues, I have gained a greater awareness of how I am utilising my reflective skills in novel situations. Specifically, I have become aware of the benefits of these skills in situations that are challenging or unexpected, and I have experienced the positive impact that this approach can have in helping others reach resolutions. Furthermore, analysing my experiences using Johns' (1994) model allowed me to consider wider factors that are of importance. By considering both internal and external influences, as well as past knowledge and experience, I feel that I can place my experience within context.

Even though the situation reflected on was positive, it is important to consider alternative strategies and what the outcome of these would have been. While I believe that my actions and the subsequent outcomes were beneficial to both myself and the staff team, I must be aware of areas for future development. Such a process of reflection has highlighted to me how my wider skills have developed and the positive impact this has had. It is vital to use the process to identify how what has been learned can be carried forward and utilised in the future.

Chapter 5 Appendixes

**Appendix 1: Requirements for Submission to Journal of Applied
Research in Intellectual Disabilities**

11. GENERAL

The *Journal of Applied Research in Intellectual Disabilities* is an international, peer-reviewed journal which draws together findings derived from original applied research in intellectual disabilities. The journal is an important forum for the dissemination of ideas to promote valued lifestyles for people with intellectual disabilities. It reports on research from the UK and overseas by authors from all relevant professional disciplines. It is aimed at an international, multi-disciplinary readership.

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Appendix 2: Major Research Project

**INFORMATION SHEET
FOR SERVICE USERS**



**Please read this information. You
can ask a carer to read it with you.**



My name is Sarah. I am at university
learning to be a psychologist.

What is this about?



I am doing a research study as part of my
university course. I am asking if you would
like to take part.

My study is about how service users and
staff talk to each other. I would like to learn
more about this.



Why have I been chosen?

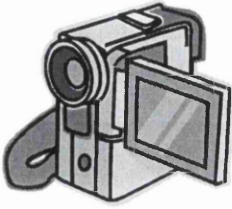
I am asking 28 service users to take part
in my project. They will be from different
day centres in Glasgow and Clyde.

Do I have to take part?



No. It is OK if you do not want to take part
in my project. It will not change anything at
your day centre.

What will happen if I decide to take part?

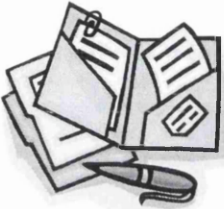


I will come to your day centre.

I will video record you and a staff member doing one of your activities.

I would record you for 10 minutes.

What information will you use?



I will watch the video.

I will write down what you and the staff member say and do.



I will keep this information on a computer. I will remove your name so no one knows it is about you.

I will not use your name or any personal details about you.

What happens to the video?



The video will be kept in a locked cupboard in my office.

What happens if I change my mind?

Nothing. If you decide that you do not want to take part that's OK. All your information will be destroyed.

Who will read this?



My project will be read by other psychologists.

A copy will be in the library at the hospital, so other people can read it too.



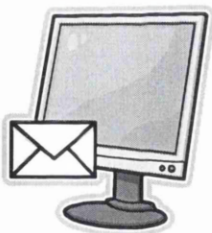
Any questions?

If you have any questions, please ask me.

Contact for more information:



Sarah Andrews
Trainee Clinical Psychologist
Department of Psychological Medicine
University of Glasgow
Gartnavel Royal Hospital
1055 Great Western Road
Glasgow
G12 0XH



sarah.andrews@ggc.scot.nhs.uk

Thank you for taking the time to read this leaflet



CONSENT FORM FOR SERVICE USERS



Please Circle: YES NO



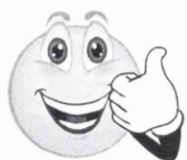
Have you read the information
sheet?

✓ x



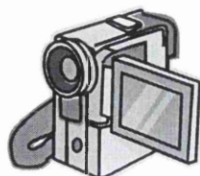
Have you had chance to ask
questions?

✓ x



Do you want to take part in my
study?

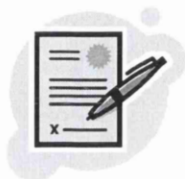
✓ x



Is it OK for me to video record
you?

✓ x

Participant name.....



Participant
signature:.....

Date:

Name in Block Letters:
.....



Witness
signature:.....

Relationship to named
person.....

Date:

Name in Block Letters:
.....



Researcher
signature.....

Appendix 2.3: Demographic Information Sheet

Demographic Information Sheet – Staff

Name:

Age:

Resource Centre:

Service user whom you work with:

Post held:

How long have you held this post?:

Qualifications:

Please outline any other relevant experience you have working with adults with disabilities:

.....

.....

.....

.....

Thank you for completing this form.

Appendix 2.4: Rating of Relationship Sheet

Rating of Relationship Sheet – Staff

Staff identification number:

Service User identification number:

Thinking about the service user whom you work.

How would you rate your relationship with that person?

Please circle one number:

1	2	3	4	5
Very negative				Very positive

Appendix 3: Major Research Project Proposal

The Influence of Staff Communication Style on Service User Response

– An Exploratory Study

Introduction

Of late, a literature base has been established that has highlighted the importance of how day centre and residential support staff communicate with individuals who have an intellectual disability (McConkey et al, 1999a; 1999b; Bradshaw, 2001). However, there is a need for further research to determine how aspects of staff interaction affect service user communication.

In the general psychological literature, communication is defined as the process by which one organism transmits information to and influences another (Gleitman et al, 1999). This process is assumed to be interpersonal, as it is a social activity where the thoughts of one mind are conveyed to another. Thus, in a communicative exchange, each partner must know the sounds, words and sentences, as well as certain principles of conversation. These principles affect the way in which language is used in different circumstances. In other words, to communicate successfully, a person has to build a mental picture of their communicative partner.

It is known that many people with an intellectual disability (ID) will show significant difficulties with communication (Emerson et al, 1995); therefore, communicating with a person with an ID may be more complex than communicating with a non-disabled person. In fact, the prevalence of communication disorders amongst individuals with an ID is reported to range from 62 – 81%, depending on survey populations and definitions used (Bartlett and Bunning, 1997).

As previously discussed, communication is a complex process that assumes both partners have equal understanding and abilities. The majority of research, to date, has

assumed that any identified problems in a communicative exchange are considered to lie with the intellectually disabled individual. Specifically, Mirenda and Donnellan (1986) noted that individuals with an ID will find it difficult to organise, monitor and coordinate the elements that compromise an interaction. Particularly, aspects of communication such as responding to their partner and taking their view into account may be especially challenging.

Bartlett and Bunning (1997) also reported the importance of investigating the communication partnership between support staff and service users. In particular, they noted that due to the nature of their impairments, adults with an ID require assistance in the maintenance and development of their skills. Moreover, it is acknowledged that support staff often play the key role in this task. Similarly, it is suggested that the progression of an individual's communication skills may be dependent on the nature of the staff's response to their communicative acts. Grove et al (1999) highlighted that individuals who have difficulties with communication are more susceptible to having the messages that they are trying to convey misinterpreted. Thus, research effort has often been directed at enhancing and improving the communication skills of the service user (McConkey, 1999a). However, many intellectually disabled individuals may find adapting their communication difficult. Therefore, as the majority of service users' daily interactions occur with day centre or residential staff, it is vital that they communicate at a level that is appropriate to the individual, subsequently enhancing their quality of life (Golden and Reece, 1996). Consequently, failure of communication can threaten the important social and educational role played by interactions with staff.

It has been suggested that some of these difficulties with communication may be related to the interaction itself, rather than the disabilities of one individual. Marfo (1990) noted that interventions for language problems in children have shifted from focusing solely on the child to the interaction between the child and their conversational partner. This is due to the view that communication development occurs as a function of the interaction between two people, rather than from the ability of one individual. Hence, it is suggested that the best way to improve the communicative process may be for the non-disabled individual to adapt their communication style to suit the needs of their partner (Butterfield and Arthur, 1995).

More specifically, Purcell et al (1999) proposed a transactional model of communication, which has led to the communicative style of the more able partner being investigated. A considerable proportion of the research in this area has been based upon interactions between mothers and their developmentally delayed children (Marfo, 1990). In particular, aspects of communicative style, such as directiveness and responsiveness, have been explored. Directiveness is defined as the use of a high incidence of commands and questions, a high rate of turn taking, and the use of long speaking turns. Conversely, responsiveness is assumed to correspond to balanced turn taking, contingent responding, being animated and allowing enough time for your partner to respond.

Tannock (1988) investigated mothers' directiveness in interactions with Down Syndrome and normally developing children. Observations were made of mothers' directive and responsive interactions in free play sessions. It was found that the mothers of children with Down Syndrome were more directive than those of non-disabled

children. Marfo (1990) noted that findings such as these led to maternal directiveness being interpreted as a negative interactional phenomena. That is, as mothers of learning disabled children were observed to be more directive, it was questioned whether directiveness was contributing to the poor developmental outcomes of their children (Paparella and Kasari, 2004). Similarly, several studies in normally developing children indicate that high levels of directiveness can have a negative effect on the child's development (Marfo, 1990). However, a certain amount of directiveness has since been considered as an adaptive strategy used by mothers to increase their child's level of participation (Tannock, 1988).

Mahoney and Wheeden (1999) conducted a similar study examining the effect of teacher's communication style on the engagement of young intellectually disabled children. Through a series of observations, it was found that the teacher's communication style varied according to the demands of the situation. In instructive sessions, teachers were observed to be more directive and less responsive than in free play sessions. It was noted that directiveness was more likely to encourage the children to interact with the teacher, whereas responsiveness prompted the children to initiate social behaviours. The authors concluded that the two communication styles complimented each other, with the optimal style being a high level of responsiveness, along with moderate levels of directiveness to maintain the child's attention.

As well as research into parent/teacher and child interactions, aspects of communication with intellectually disabled adolescents have also been investigated. For example, Miranda and Donnellan (1986) used a small group design to investigate how teachers' communication style affected the spontaneous verbal output of

intellectually disabled adolescents. Results indicated that when the more able partner in the exchange used a facilitative (responsive), rather than directive style, the adolescents produced more spontaneous output (including comments and questions). Therefore, it was concluded that the communication style of the non-disabled individual may be critical in determining the subsequent conversational output of the adolescents. Moreover, a facilitative style of communication resulted in the adolescents showing greater ability in initiating topics, asking questions, and making comments.

In summary, these studies indicate that aspects of the communicative style (such as directiveness and responsiveness) may affect how an individual responds in a communicative exchange. It has been highlighted that a responsive communication style, with a moderate level of directiveness, is optimal for promoting interactions with children and adolescents with an ID. Surprisingly, however, very little research has examined such communication in an adult ID population. Specifically, there is a lack of studies investigating how staff communication style affects communicative output of intellectually disabled adults. There is a need for further research to address the question of how much directiveness is necessary to provide an optimal learning environment and what level constitutes excessive control, resulting in possible detrimental effects.

One study, which has investigated the communication style of support staff was carried out by McConkey et al (1999b). The authors explored the ability of support staff to adapt their communication across different settings when interacting with intellectually disabled adults. Particularly, they aimed to establish if staff were aware of the different types of communicative acts that they use, and how these vary across various contexts

(e.g. task centred, social conversations). Staff were asked to rate their use of verbal and non-verbal communicative acts (e.g. gesturing, pointing, instructions, corrections), prior to being videotaped in a communicative exchange. Whilst staff were able to adapt their communication across different contexts on the whole, this was determined by their reported use (or non-use) of a 'teaching' strategy. This directive style was observed through increased use of corrections, giving instructions, pointing, and touch. Recommendations from this study included encouraging staff to be more responsive during interactions, leaving more time for the client to respond, and increasing their use of questions.

Additionally, Nind (1996) explored the use of an intensive interaction training program to analyse the verbal communication style that support staff use with adult service users. They also investigated the links between the staff's style and the service users' engagement in the communicative process. Through training staff to adjust aspects of their communicative behaviour, such as contingent responding, it was found that after 18 months service users were showing more interactive behaviours. They were also found to be more able to initiate and maintain social contact.

Lastly, Prior et al (1979) investigated the verbal interactions between staff and adult residents in an institutional setting. In particular, they investigated the types of verbal interactions used by staff, and the subsequent effect that these had on residents' responses. Through a series of observations (in both structured and unstructured situations), it was found that instruction was the most frequently initiated type of staff communication. In contrast, conversation was found to occur least often. Despite the

low rates of conversation, this was the communication style found to promote most verbal responses from the residents.

In expanding this research literature, the present study aims to investigate if support staffs' communication style affects the communicative output of adult service users. Moreover, it also aims to determine which style of communication is optimal for encouraging service user participation. Based on previous research, it is hypothesised that increased levels of directiveness will inhibit spontaneous verbal output, whilst responsiveness will promote it.

This is of clinical importance as a breakdown in communication between staff and service users can result in many unwanted consequences. Dobson et al (2002) noted that failure in communication could lead to social isolation and a lesser ability to maintain interpersonal relationships. Similarly, difficulties in communication have been demonstrated to contribute to learned habits of compliance, low self-esteem, and disempowerment (Van der Gaag, 1998). Furthermore, if individuals are communicated to in a way that they do not understand, they may become frustrated, leading in turn to anger or withdrawal from others. Such communicative environments have been highlighted as a possible factor in the development and maintenance of challenging behaviours (Hastings and Remington, 1994).

Thus, evaluating how staff communicate with service users will provide important information that can be used to devise training packages for care providers. Van der Gaag (1998) suggests that training for staff should be comprehensive, practical and be tailored to the communicative needs of the individual. This research will explore in

detail the significant communicative factors of relevance when supporting adults with an ID.

Aims and hypotheses

Aims

The present study aims to investigate whether support staff's communication style affects intellectually disabled adults communicative response during conversational interactions. Specifically, staff directiveness and responsiveness will be examined in during conversational interactions in naturally occurring settings.

Hypotheses

It is hypothesised that service user's communicative response will influenced by the staff member's communication style (i.e. directive or responsive).

More specifically the following hypotheses will be tested:

- 1) Increased level of staff directiveness will be associated with decreased communicative responses from service users.
- 2) Responsive communication style will be associated with increased communicative responses from service users.

Staff Communication Style	Service Users Communicative Response
Directive	Decreased
Responsive	Increased

Plan of Investigation

Design

A naturalistic design will be used. Dyads (i.e. staff member and service user pair) will be asked to complete a naturally occurring 'shared activity' within their day centre. The communicative exchange will be analysed in order to observe the effect that staff member's communicative style (i.e. directive or responsive) has on service user's communicative response.

Participants

All participants will be over 18 years old and will attend a day centre for adults with intellectual disabilities within Glasgow.

Participants will be day centre support staff working in registered adult day centres within Greater Glasgow and Clyde. Staff recruited will have worked within the service for a minimum of 6 months and will have known the client for minimum of 3 months, as this will target dyads that have an established relationship.

Recruitment Procedures

Recruitment will begin once ethical approval has been granted. The managers of day centres for adults with intellectual disabilities will be contacted to establish their interest in the project.

Once the resource centre has agreed to take part, managers will be asked to identify possible service users who fulfill the inclusion and exclusion criteria detailed below.

These service users will then be approached, and provided with a symbolised information sheet outlining the study. Service users will be provided with the opportunity to ask any questions they may have regarding the study. Service users will then be asked if they consent to taking part in the study. A separate symbolised consent form will also be provided. The next of kin will also be provided with information sheets about the nature of the study if required.

The service users who agree to participate will then be asked to identify a staff member with whom they would routinely work. The staff member will then be approached and asked if they wish to participate. Again, an information leaflet and consent form to participate, will be provided for the staff members.

It is expected that the recruitment process will take approximately three months. To ensure adequate recruitment, managers from all day centres within Glasgow will be approached. The field supervisor has direct links with the appropriate services, therefore it is expected that it will be possible to recruit the required sample size.

Inclusion and Exclusion Criteria

Service Users

Inclusion criteria will include adults with a mild to moderate level of intellectual disability. This will be verified by senior managers and key workers. Inclusion criteria will also include those individuals who have English as a first language.

Exclusion criteria for all clients will include individuals with no form of verbal speech. Individuals who display challenging behaviour will not be included in the study, as this

may affect the ability of the client to engage in an activity with the staff member (Kevan, 2003). Similarly, individuals diagnosed with an Autistic Spectrum Disorder will also be excluded from the study as they may have specific social cognitive deficits that would cause problems with reciprocal conversation (Wing and Gould, 1979). Individuals diagnosed with a severe mental health disorder or sensory impairments (e.g. hearing or sight problems) will also not be included in the study, as again these may again impair their ability to communicate.

Staff Members

Staff members will be included in the study if they routinely work with a service user who wishes to participate in the study. Staff members will also be required to have worked in with adults with learning disabilities for at least 6 months, and have known the service user for at least 3 months.

Staff members will be excluded if they do not have English as a first language, as this may affect the flowing and reciprocal nature of the conversation.

Measures and Procedures

Pre Measures

Staff Characteristics

Prior to being videotaped, staff members will be asked to complete two measures. This data will be gathered in order to control for staff characteristics, which may influence the communicative exchange.

1) Demographic Information Sheet

This will be completed in order to gain information about their age, length of service, position and qualifications.

2) Rating of Relationship Sheet

Staff will also be asked to provide information regarding their relationship with the service user whom they work. This will include how long they have worked with the service user, level of contact, and a rating of their relationship on a 5-point likert scale (1 = very negative to 5 = very positive).

Naturalistic Conditions

The activities will be naturally occurring, chosen in relation to the individual's timetable at the day centre. The decision on which activity to choose will be made in conjunction with the service user and the staff member.

Staff and service users will be video recorded for 10 minutes whilst completing a naturally occurring 'shared activity' activity within their day centre. This will include the dyad completing a purposive activity (e.g. cooking, craft, computing).

Post Measures

Service User Characteristics

In attempting to control for the influence of service user characteristics in the communicative exchange, the service user's communication skills will be assessed using the following measures:

3) Communication Assessment Profile (CASP)

The CASP (Van der Gaag, 1988) is a UK standardized communication assessment for adults with severe to moderate learning disabilities. The CASP assesses individual's understanding and use of language and the communication environment. Results from studies of validity have shown that CASP is a reliable and valid clinical tool, able to measure communication skills with accuracy, and sensitive to differences between adults living in hospital and community settings (Van der Gaag and Lawler, 1990).

4) Vineland Adaptive Behavior Scales (VABS)

The VABS (Sparrow, et al, 1984)) is a reliable and valid measure of adaptive behaviour in four domains: communication, daily living skills, socialisation and motor skills.

Research Procedures

Firstly, staff members will be asked to complete the demographic information sheet and rating of relationship sheet in a private room in their day centre.

The dyad will be then be videotaped interacting in a familiar setting within their day centre. This will be a 'shared activity' that the dyad would routinely complete.

To familiarise staff and service users to the presence of the recording equipment, they will initially spend 5 minutes in the room with the video recorder set up. No recordings or observations will be made for the duration of this time. The researcher will interact freely with the dyad during this period, before withdrawing prior to the commencement

of recording. Staff members and service users will be given no instruction other than to interact as normal.

The staff member and service user will be videotaped interacting for a 10-minute period in the situation in which they have been randomly assigned. The dyad will be informed when the recording begins and told that they will be recorded for 10 minutes. After 10 minutes, the video recorder will be stopped and the researcher will inform the dyad that recording has ceased. The service user will then be free to return to their daily activities

The participating staff member will be asked to complete the Vineland Adaptive Behaviour Scale (Sparrow et al, 1984) and the Communication Assessment Profile (Van Der Gaag, 1988).

Data Preparation and Analysis

Preparation

The videotapes will be analysed to record the behaviour of the staff member and service user, including vocalisations and speech gestures (e.g. pointing and nodding), actions (e.g. picking up, throwing), and the direction of eye gaze (when not concentrated on own or partners activity). The data will be coded using an a coding system derived by Tannock (1988), for use in examining the reciprocal nature of interaction between mothers and their children. A flowchart of the proposed system is shown in Appendix B, and an explanation of terms used is outlined in Appendix C.

At the first level of analysis, the communication of each individual is classified into whether the individual communicates by responding in some way, or not responding at

all (a *missed turn*). If an individual misses a turn, this can be categorised as a *silent* response, where the individual engages silently in an activity or shows shared focus through eye gaze. If the individual misses a turn and makes no communicate response to their partner, this is classed as *uninvolved*.

If an individual's response is categorised as a *communicative turn*, this is further divided into those which share the focus of their partner (a *response*) and those which aim to switch the focus of their partner (a *switch*). The switch may *initiate* a new topic or *continue* on a topic the individual had previously raised. All communicative responses are categorised into those that carry maximum summoning power to solicit a response from the partner (e.g. incorporate a request or suggestion - coded *obliges*), or those that carry minimum summoning power (e.g. acknowledgements, statements - coded as *comments*).

Reliability of Coding

Reliability of the coding system will be established by an independent rater. The rater will be trained by the researcher in the use of the coding system. Reliability will be established by selecting random 2 minute samples from half of the dyad's 10 minute recordings. The coding will be compared with that of the researcher, and inter-rater reliability coefficients will be reported using Cohen's Kappa.

Analysis

The videotapes will then be analysed to identify the following aspects of communicative style;

1) Directiveness

- a. Response control – the staff member’s tendency to use commands, questions, and other behaviours to elicit a response from the service user.
- b. Topic control – refers to the staff member’s tendency to redirect the service user’s attention to staff selected topic by using utterances or turns that are unrelated to the service users ongoing activity or topic.
- c. Turn-taking control – addresses the extent to which staff members dominate the interaction by contributing long and frequent turns.

2) Responsiveness

- a. The extent to which staff members use responses to share the service user’s focus and engage them in communication, whether the service user has taken a turn or is uninvolved.

3) Uninvolvement (service user only)

- a. The extent to which the service user does not respond to the staff comment/request/question.

4) Index of interactional activity

- a. The individual’s active participation in interaction, in terms of sustaining shared focus and introducing new topics.

5) Dyadic topic maintenance

- a. The number of consecutive units produced by the dyad that share the same topic/focus.

Data analysis will be based on the following measures:

- The overall frequencies of turns and turn types counted for 10 minutes of interaction for each dyad in each situation.
- The proportion of turn types calculated by dividing the turn types by the total number of turns.
- The conditional probability of turn types given the antecedent behaviour of the partner.

Each turn will be coded according to the coding system. Each response will be entered as a numerical code into Microsoft Excel. Analysis will be conducted using the Statistical Package for the Social Sciences for Windows (SPSS).

Four kinds of analyses will be conducted on the present data. First, the distribution of the data will be examined to establish if parametric assumptions are met. Second, initial, descriptive statistics will be produced for the purposes of sample description. Third, in attempting to control for associations in further analyses, Pearson's correlations (or non-parametric equivalent) will be used to establish any associations between the data gathered and control variables (staff characteristics and service user characteristics). Fourth, t-tests (or non parametric equivalent) will be used to compare whether there is a significant difference in the conditional probabilities of service user's communicative response given the antecedent turn type of their partner. ANOVA will be used to examine which aspects of directiveness (response control, topic control, turn-taking control) have the greatest effect on service user's communicative response.

Justification of sample size

A prior study that investigated staff directiveness and responsiveness using an adult learning disabled population was not identified. Given the major exploratory component to this study, it is difficult to establish the required parameters. It is estimated that, using two tailed independent samples t-tests, 54 participants will be required to detect significant differences between groups at an alpha level of 0.05, with a power of 0.7 and with a good effect size (0.7). However, based on previous research (Tannock, 1988), it is estimated that from the 10-minute recordings, there will be between 200-300 communicative turns taken per dyad. Therefore, it is expected to involve time intensive analysis, given an estimated 3-4 hours transcription and coding per dyad. Therefore, based on these factors, the exploratory nature and as this is a novel area of research within this population and, the present study aims to recruit a sample size of 28.

Settings and Equipment

All recording will be carried out at the registered day centres for adults with a learning disability within Glasgow. Suitable rooms will be required, which will be determined with each resource centre on an individual basis.

Printing and photocopying facilities will be required for participant information and consent forms. A copy of the Vineland Adaptive Behavior Scale and the Communication Assessment Profile will be required to assess the service user's communication ability. A computer with Microsoft Office will be required for data analysis. Also a portable video recorder (plus blank tapes), with tripod will be required for recording purposes.

Health and Safety Issues

Researcher Safety Issues

All observations and recordings will be undertaken in registered resource centres for adults with learning disabilities, within normal day centre operating hours (10 am – 3pm). No data gathering will occur out of hours or no home visits will take place. It will be ensured that a resource centre staff member will be present at all times.

Participant Safety Issues

Time has been taken to minimize the time and effort that is required of individuals to participate in the study, by keeping the data gathering to a minimum. It is intended that safe environments will be utilised in order for the observations to be recorded, and ensure that individuals are not participating in activities that would be outwith those they would usually undertake whilst at the resource centre.

Any unforeseen health and safety or ethical issues raised by the research will be addressed according to the guidance set out in 'Ethical Principles for Conducting Research with Human Participants' (BPS, 1998).

A copy of the findings will also be made available to interested parties.

Ethical Issues

Ethical approval will be sought from Greater Glasgow Primary Care Trust Ethics Committee.

Financial Issues

It is anticipated that the proposed study will require 200 sheets of plain A4 paper and 200 photocopies. This is for service user and staff information study information sheets and consent sheets. Also, 4 blank cassette tapes will be required for recording purposes. This will come to a total cost of £8.70.

Practical Applications

By beginning to explore the relationship between staff communicative style and the effect that this has on service user response, this study has beneficial implications for the development of staff training. The present study will expand upon previous research by focusing on adults with learning disabilities.

Timetable

January 2007	Submission of outline proposal
March 2007	Submission of final proposal for marking
July 2007	Final submission for University approval
September 2007	Apply for ethical approval
October 2007	Receive ethical approval (estimated)
November 2007	Begin recruitment
January 2008	Begin data collection and coding
May 2008	Begin data analysis
June 2008	First draft submitted
July 2008	Amended draft submitted
August 2008	Final draft submitted

References

Bartlett, C. & Bunning, K. (1997) The Importance of Communicative Partnerships: A Study to Investigate the Communicative Exchanges Between Staff and Adults with Learning Disabilities. *British Journal of Learning Disabilities*, 25 148-153.

Bradshaw, J. (2001) Complexity of staff communication and reported level of understanding in adults with intellectual disability. *Journal of Intellectual Disability Research*, 45(3), 233-243.

Butterfield, N. & Arthur, M. (1995) Shifting the focus: Emerging priorities in communication programming for students with severe intellectual disability. *Education and Training in Mental Retardation and Developmental Disabilities*, 30, 41-50.

Emerson, E., Hatton, C., Bromley, B. & Caine, C. (1995) *Clinical Psychology and People with Intellectual Disabilities*. Wiley Series.

Gleitman, H., Fridlund, A.J. & Reisberg, D. (1999) *Psychology: Fifth Edition*. Norton.

Golden, J. & Reese, M. (1996) Focus on Communication: Improving Interaction Between Staff and Residents Who Have Severe or Profound Mental retardation. *Research in Developmental Disabilities*, 17(5), 363-382.

Grove, N., Bunning, K., Porter, J. & Olsson, C. (1999) See What I Mean: Interpreting the Meaning of Communication by People with Severe and Profound Intellectual Disabilities. *Journal of Applied Research in Intellectual Disabilities*, 12(3), 190-203.

Hastings, R.P. & Remington, B. (1994) Rules of Engagement: Towards an analysis of staff Responses to challenging behaviour. *Research in Developmental Disabilities*, 15(4), 279-298.

Kevan, F. (2003) Challenging Behaviour and Communication Difficulties. *British Journal of Learning Disabilities*, 31, 75-80.

Mahoney, G. & Wheeden, C.A. (1999) The effect of Teacher Style on Interactive Engagement of Preschool-Aged Children with Special Learning Needs. *Early Childhood Research Quarterly*, 14(1), 51-68.

Marfo, K. (1990) Maternal Directiveness in Interactions with Mentally Handicapped Children: An analytical Commentary. *Journal of Child Psychology and Psychiatry*, 31(4), 531-549.

Mirenda, P.L. & Donnellan, A.M. (1986) Effects of adult interactional style on conversational behaviour in students with severe communication problems. *Language, Speech and hearing Service in Schools*, 17, 146-141

McConkey, R., Morris, I. & Purcell, M. (1999a) Communications between staff and adults with intellectual disabilities in naturally occurring settings. *Journal of Intellectual Disability Research*, 43(3), 194-205.

McConkey, R., Purcell, M. & Morris, I. (1999b) Staff Perceptions of Communication with a Partner who is Intellectually Disabled. *Journal of Applied Research in Intellectual Disabilities*, 12(3), 204-210.

Nind, M. (1996) Efficacy of intensive interaction: developing sociability and communication in people with severe and complex learning difficulties using an approach based on caregiver-infant interaction, *European Journal of Special Needs Education*, 11, 48-66.

Paparella, T. & Kasari, C. (2004) Joint Attention Skills and Language Development in Special Needs Populations. Translating Research to Practice. *Infants and Young Children*, 17(3), 269-280.

Prior, M., Minnes, P., Coyne, T., Golding, B., Hendy, J. & McGillivray, J. (1979) Verbal interactions between staff and residents in an institution for the young mentally retarded. *Mental Retardation*, 17, 65-69.

Purcell, M., McConkey, R. & Morris, I. (1999) Staff perceptions of the communicative competence of adults persons with intellectual disabilities. *British Journal of Developmental Disabilities*, 45, 16-25.

Sparrow S. S., Balla, D.A. & Cicchetti, D.V (1984) *Vineland Adaptive Behaviour Scales: Interview Edition*. American Guidance Service, MN.

Tannock, R. (1988) Mothers' directiveness in their interactions with their children with and without Down Syndrome. *American Journal on Mental Retardation*, 93(2), 154-165.

van der Gaag, A. (1988) *The Communication Assessment Profile (CASP)*. London: Speech Profiles.

Van der gaag, A. (1998) Communication skills and adults with learning disabilities: Eliminating professional myopia. *BILD Keynote Reviews: British Journal of Learning Disabilities*, 26, 88-93.

Van Der Gaag, A. & Lawler, C.A. (1990) The validation of a language and communication assessment procedure for use with adults with learning difficulties. *Health Bulletin*, 48(5), 254-259.

Wing, L. & Gould, J. (1979) Severe impairments of social interaction and associated abnormalities in children: Epidemiology and classification. *Journal of Autism and Developmental Disorders*, 9(1), 11-29.

Appendix 4: Ethical and Research and Development Approval

Research Ethics
R&D Directorate
Gartnavel Royal Hospital
1055 Great Western Road
Glasgow G12 0XH
www.nhsggc.org.uk



Mrs Sarah Louise Andrews
Trainee Clinical Psychologist
NHS Greater Glasgow and Clyde
Department of Psychological Medicine
Academic Centre
Gartnavel Royal Hospital,
Glasgow G12 0XH

Date 17 October 2008
Your Ref
Our Ref
Direct line 0141 211 3824
Fax 0141 211 3814
E-mail Liz.Jamieson@ggc.scot.nhs.uk

Dear Miss Deans

Full title of study: The Influence of Staff Communication Style on Service User Response - An Exploratory Study.

REC reference number: 07/S0701/93

Thank you for your letter of 20 October 2007, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered at the meeting of the Sub-Committee of the REC held on 18 October 2007. A list of the members who were present at the meeting is attached.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised.

Ethical review of research sites

The favourable opinion applies to the research sites listed on the attached form.

Conditions of approval

The favourable opinion is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Application	Version 1	16 August 2007
Investigator CV		

Protocol		21 August 2007
Protocol	Version 3	20 October 2007
Covering Letter		20 August 2007
Participant Information Sheet: Service Users	Version 1	21 July 2007
Participant Information Sheet: Keyworkers	Version 1	21 July 2007
Participant Consent Form: Keyworkers	Version 1	21 July 2007
Participant Consent Form: Service Users	Version 1	
Response to Request for Further Information	Covering Letter	20 October 2007
CV - Sharon Home-Jenkins	Version 2	
Supervisor's CV	Prof A Jahoda	
Flowchart of Research Procedure	Version 1	21 July 2007
Demographic Information Sheet Keyworkers	Version 1	21 July 2007
Rating of Relationship Sheet	Version 1	21 July 2007

R&D approval

All researchers and research collaborators who will be participating in the research at NHS sites should apply for R&D approval from the relevant care organisation, if they have not yet done so. R&D approval is required, whether or not the study is exempt from SSA. You should advise researchers and local collaborators accordingly.

Guidance on applying for R&D approval is available from
<http://www.rdforum.nhs.uk/rdform.htm>.

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Website > After Review

Here you will find links to the following

- Providing feedback. You are invited to give your view of the service that you have received from the National Research Ethics Service on the application procedure. If you wish to make your views known please use the feedback form available on the website
<https://www.nationalres.org.uk/AppForm/Modules/Feedback/EthicalReview.aspx>.
- Progress Reports. Please refer to the attached Standard conditions of approval by Research Ethics Committees.
- Safety Reports. Please refer to the attached Standard conditions of approval by Research Ethics Committees.
- Amendments. Please refer to the attached Standard conditions of approval by Research Ethics Committees.

- e) End of Study/Project. Please refer to the attached Standard conditions of approval by Research Ethics Committees.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nationalres.org.uk .

07/S0701/93

**Please quote this number on all
correspondence**

With the Committee's best wishes for the success of this project

Yours sincerely

Liz Jamieson

Research Ethics Committee Co-ordinator on behalf of Dr Paul Fleming, Chair

Enclosures: List of names and professions of members who were present at
the meeting
Standard approval
Site approval form

Copy to: Mr Brian Rae

Glasgow & Clyde Primary Care, Community & Mental Health
LIST OF SITES WITH A FAVOURABLE ETHICAL OPINION

For all studies requiring site-specific assessment, this form is issued by the main REC to the Chief Investigator and sponsor with the favourable opinion letter and following subsequent notifications from site assessors. For issue 2 onwards, all sites with a favourable opinion are listed, adding the new sites approved.

REC reference number:	07/S0701/93	Issue number:	0	Date of issue:	18 October 2007
Chief Investigator:	Miss Sarah Louise Deans				
Full title of study:	The Influence of Staff Communication Style on Service User Response - An Exploratory Study.				
<p><i>This study was given a favourable ethical opinion by Glasgow & Clyde Primary Care, Community & Mental Health on 18 October 2007. The favourable opinion is extended to each of the sites listed below. The research may commence at each NHS site when management approval from the relevant NHS care organisation has been confirmed.</i></p>					
<i>Principal Investigator</i>	<i>Post</i>	<i>Research site</i>	<i>Site assessor</i>	<i>Date of favourable opinion for this site</i>	<i>Notes ⁽¹⁾</i>
Miss Sarah Louise Deans		N/A. Site not specified in database.	Glasgow & Clyde Primary Care, Community & Mental Health	18/10/2007	

Approved by the Chair on behalf of the REC:

..... (Signature of Chair/Co-ordinator)
(delete as applicable)

..... (Name)